



**US Army Corps  
of Engineers**  
Baltimore District

## **NOTICE OF AVAILABILITY AND JOINT PUBLIC NOTICE**

**Masonville Dredged Material Containment Facility (DMCF),  
Baltimore, Maryland**  
CENAB-OP-RMN (MPA/Masonville DMCF) 2006-63743  
Wetlands License 06-WL-1653  
Comment Period: May 19 to July 7, 2006



**Maryland  
Department of  
the Environment**

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**THE PURPOSE OF THIS NOTICE IS TO SOLICIT RESPONSE FROM THE PUBLIC ABOUT THE WORK DESCRIBED BELOW, TO ANNOUNCE THE AVAILABILITY OF THE DRAFT ENVIRONMENTAL IMPACT STATEMENT, AND TO ANNOUNCE THE DATE OF THE PUBLIC HEARING. AT THIS TIME, NO DECISION HAS BEEN MADE AS TO WHETHER OR NOT AUTHORIZATIONS WILL BE ISSUED.**

The Baltimore District of the U.S. Army Corps of Engineers (USACE) has received an application for a Department of the Army Permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) and Section 404 of the Clean Water Act (33 U.S.C. 1344) for the construction of a proposed dredged material containment facility (DMCF) in the Patapsco River, Baltimore, MD. The Maryland Department of the Environment (MDE) has also received an application for alteration of any floodplain, waterway, tidal or nontidal wetlands in Maryland pursuant to the following: Title 16 of the Environment Article (Tidal Wetlands License) and Title 9 of the Environment Article (Nontidal Wetlands Permit).

**APPLICANT:**

Harbor Development  
Maryland Port Administration  
2310 Broening Hwy.  
Baltimore, MD 21224

**PUBLIC HEARING:**

Wednesday, June 21, 2006  
Baum Auditorium  
Harbor Hospital  
3001 S. Hanover Street  
Baltimore, MD 21225

Displays will be available at 6 pm. Representatives of the project team and the agencies listed above will be available to discuss points of interest. A formal presentation will begin at 7 pm that will include a description of the current project plans and the results of the draft impact analysis. The presentation will be followed by public testimony, which will be recorded. Time limits of 3 minutes per speaker may be set, depending upon turnout, to ensure that all interested parties have an opportunity to voice their views. All persons and organizations that have an interest in the Masonville DMCF are urged to participate.

Anyone who is hearing-impaired who wishes to attend this meeting should notify Mr. Jon Romeo of the Corps or Ms. Stephanie Lindley of the Maryland Environmental Service at the addresses listed near the end of this notice. Non-English speaking persons who wish to attend should also notify Mr. Romeo or Ms. Lindley. All requests for an oral, sign language, or non-English language interpreter must be received by June 15, 2006. To the extent possible and feasible, an interpreter will be provided.

**WATERWAY AND LOCATION:** The Patapsco River, a tributary of the Chesapeake Bay, is generally considered to be part of Baltimore Harbor Maryland. The site is estuarine and is located approximately 4 miles upstream of the Key Bridge and approximately 1 mile downstream of the Hanover Street Bridge, on the southern shore of the Middle Branch of the Patapsco River (See attached plans). The land portions of the site lie at: 3100 Childs Street, Baltimore, Maryland.

**DESCRIPTION OF WORK:** The project includes construction of a new DMCF consisting of rock-armored sand/clay containment structure, unarmored sand/clay containment structures and steel cellular cofferdams. The maximum channelward encroachment of the project would be 1,200 feet. The containment structure will include 4,000 linear feet of stone revetment and groins and 1,200 linear feet of steel bulkheading (for the cofferdam). Approximately 1,400 linear feet of beach construction, consisting of approximately 70,000 cubic yards of clean sand, is also proposed. The containment structure would be initially constructed to elevation +10 ft MLW, with future temporary elevation to +42 ft MLW and ultimate elevation to +36 ft MLW, and impact approximately 131 acres of waters of the United States. Mechanical pre-dredging with placement at Hart-Miller Island (HMI) DMCF of about 1,700,000 cubic yards of overburden materials geotechnically unsuitable for construction would be performed prior to construction of the containment structure. Hydraulic dredging of about 1,500,000 cubic yards of sand from within the proposed DMCF footprint would be performed to construct the outer sand portion of the +10 ft MLW containment structure sections, followed by hydraulic/mechanical dredging of 500,000 cubic yards of clay (from within the DMCF footprint) to be placed on the inside of the containment structures. Two new spillway structures and discharge outfalls would be included in the construction of the DMCF. Ancillary construction associated with the DMCF would be relocating a Baltimore City 48-inch water main line, relocating sunken barges, and relocating a commercial mooring buoy. Also proposed is the installation of 3,200 linear feet of storm drain pipe which is to discharge to tidal waters. This is associated with the relocation of a city storm drain system. Total project footprint, including uplands, is approximately 141 acres.

**DETAILED PROJECT BACKGROUND:** The USACE was identified as the lead agency under the National Environmental Policy Act (NEPA) and has received application for a Department of the Army permit. In accordance with the requirements of NEPA, USACE has prepared a *Tiered Draft Environmental Impact Statement for the Proposed Masonville Dredged Material Containment Facility* (DEIS for the Masonville DMCF). The purpose of the document is to assess impacts to the human environment, provide an alternative analysis, and evaluate the technical feasibility and the potential impacts associated with construction and operation of a contained facility that will manage materials dredged from Baltimore Harbor. The construction of a confined disposal facility was one of seven recommendations of the USACE-Baltimore District's, *Dredged Material Management Plan (DMMP) and Tiered Environmental Impact Statement* (<http://www.nab.usace.army.mil/projects/DMMP/index.html>). The USACE is making this next tier that builds on DMMP recommendations, DEIS for the Masonville DMCF available to the public for review and comment through a Notice of Availability published in the Federal Register.

The Draft EIS for the Masonville DMCF includes evaluation of options for Baltimore Harbor dredged material placement, defined as the area west of the North Point-Rock Point line in the Patapsco River to include Old Road Bay, Bear Creek, Middle Branch and Curtis Bay and the shoreline and open water between them. Currently Harbor Materials may be placed in the Hart Miller Island (HMI) or Cox Creek DMCFs. State legislative requirements restrict filling of the HMI DMCF beyond 2009. Management of the cover and closure of the HMI DMCF may limit acceptance of dredged material as soon as the end of the 2007 dredging season and a shortfall in Harbor dredged material placement capacity could occur in Fall 2006 (State Fiscal Year 2007). The goal for this study is to provide an environmentally sound, economically feasible method for the placement or use of dredged material removed from Harbor channels and new work dredging areas within the projected time frame for placement shortfall within the Harbor. The Masonville DMCF is being proposed as a containment facility for Harbor dredged materials which are required to be contained by State law (due to known or suspected sediment contamination). The proposed project is needed to be operational by state fiscal year 2009 to accept materials that must be contained due to State law. Minimum acreages are needed to manage materials effectively.

The Draft EIS for the Masonville DMCF was conducted in compliance with Section 10 of the Rivers and Harbors Act and Sections 404 and Section 401 of the Clean Water Act, Section 7 of the Endangered Species Act, the Clean Air Act, the U.S. Fish and Wildlife Coordination Act, Section 106 of the National Historic Preservation Act, Prime and Unique Farmlands, the Magnuson-Stevens Fishery Conservation and Management Act, and the Clean Water Act. All appropriate documentation (*i.e.*, Section 7, Section 106 coordination letters, and public and agency comments) were obtained and included as part of the DEIS.

A single alignment was identified as the preferred alternative (see attached plans). To accommodate containment facility construction, approximately 15 feet (ft) of unsuitable (silty) overburden material (approximately 1.7 million cubic yards (mcy) would be removed from parts of the proposed site to expose the sand and clay below, which is suitable for containment facility construction. The unsuitable material would be removed (pre-dredged) with a mechanical dredge and taken to the pre-existing HMI DMCF. The containment structures would be similar to those used for the existing DMCFs in the area and would consist of a fine sand core with exterior slopes faced with various thicknesses of armor stone. Approximately 2 mcy of sand and clay are required for containment facility construction. Hydraulic dredging would be used for containment facility building activities. Dredged material from Baltimore Harbor navigation channels and berthing areas would be placed within the facility and dewatered to accelerate consolidation of the dredged material. As a result of this process, water would be discharged through project spillways into the Patapsco River. The majority of the construction for this project would be in the water, involving filling up to 130 acres of open water in the Patapsco River and 1 acre of vegetated wetlands (tidal and non-tidal). In order to construct the facility where it is planned, several additional activities would need to occur. A stormwater outfall needs to be relocated from the eastern part of the alignment to the western side in the southern part of Masonville Cove. A Baltimore City water line that runs under the western side of the proposed alignment must be moved so that it can be accessed for future maintenance. The most significant pre-development task involves remediation of up to 25 derelict vessels on the eastern side of the site near the former Kurt Iron and Metal (KIM) facility. Some are known to contain hazardous or other regulated wastes. A cleanup plan has been negotiated with Maryland Department of the Environment (MDE).

The preferred DMCF alternative proposes a total footprint of 141 acres and is estimated to have the following impacts:

- Filling of 130 acres of tidal open water (including 1 acre of fill due to the need to relocate several sunken barges outside the proposed footprint).
- Filling or impacting up to 1 acre of vegetated wetlands (tidal and non-tidal) along the southern shoreline of the site for stormwater outfall relocation and landside containment facility construction
- Burying or impacting up to 10 acres of upland area in the Chesapeake Bay Critical Area buffer.

The applicant has proposed compensatory mitigation for these impacts as described in the DEIS. Elements of the package are still being negotiated with the USACE, the MDE, other resource agencies, and the public but currently include:

- 5.1 acres of tidal wetlands creation and enhancement in Masonville Cove
- 10 acres of non-tidal wetlands creation in Masonville Cove
- 92 acres of fish reef habitat installation and shallow water substrate improvements adjacent to the proposed DMCF and in Masonville Cove.
- 10 acres of terrestrial habitat enhancement and diversification along Masonville Cove
- 5.8 acres of beach creation adjacent to the proposed DMCF and in Masonville Cove.
- Eel passage installation at several dams in the Patapsco River
- Shad and Herring restoration (stocking)

Several other additional projects including landside cleanup, environmental education, and trash interceptors are also being considered for watershed and community enhancement.

**Essential Fish Habitat (EFH) Assessment:** The Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), as amended by the Sustainable Fisheries Act of 1996 (Public law 104-267), requires all Federal

agencies to consult with the National Marine Fisheries Service (NMFS) on all actions, or proposed actions, permitted, funded, or undertaken by the agency that may adversely affect EFH. All areas of the Chesapeake Bay with 0.5 ppt or greater salinity are technically considered EFH, based on EFH definitions for those Federally managed species that occur in Maryland tidal waters of the Bay. Based upon guidance from NMFS, an EFH Summary Designation for upper Bay waters nearest to the Patapsco River (project area) should be used for determining which federal species have EFH designations for waters of the project vicinity. In this case the Summary Designation for the Chester River estuary in Kent and Queen Anne's Counties, Maryland was used in the preparation of an EFH Assessment for this project. The Chester River has designated EFH for the following species and their life stages: summer flounder (*Paralichthys dentatus*), juvenile and adult life stages; bluefish (*Pomatomus saltatrix*), juvenile and adult life stages; windowpane flounder (*Scopthalmus aquosus*), juvenile and adult life stages; cobia (*Rachycentron canadum*), all life stages; red drum (*Sciaenops ocellatus*), all life stages; king mackerel (*Scomberomorus cavalla*), all life stages; and Spanish mackerel (*Scomberomorus maculatus*), all life stages. A preliminary assessment indicates that the proposed project would have minimal impact on EFH based on the impacts of the proposed filling and dredging activities. The aforementioned species are not resident species, but could use the project area as a foraging area on a seasonal basis, primarily during the summer. The project has the potential to minimally affect the managed species and/or their EFH quality and/or quantity, as well as their prey species. An EFH assessment has been prepared and included in the DEIS and is being coordinated with NMFS.

Long-term adverse impacts of the proposed project are predominantly associated with conversion of 123 acres of open water to fastland (upland) and conversion of 7 acres of open water to shallower open water. The long-term significant impacts include:

- permanent change in physiography
- increase in residence time in Masonville Cove
- slight increase in sedimentation
- loss of approximately 0.6 percent of the tidal portion of the Patapsco River with associated benthic resources and fisheries habitat
- loss of a small amount of SAV and approximately 10 acres of Tier I/Tier II SAV and Shallow Water Habitat and 10 acres of upland habitat

Short-term or minor impacts of the proposed project are predicted to some resources. These predominantly would occur during construction and include:

- increased turbidity, and nutrient concentrations in the water during construction and intermittent spillway discharges
- decreased plankton density due to construction turbidity and entrainment
- intermittent nutrient releases during site operations, which could stimulate phytoplankton growth and affect dissolved oxygen (secondarily)
- loss of less mobile fish during site pre-dredging and construction
- loss of EFH and aquatic rare, threatened, and endangered (RTE) species habitat (minor because species of concern are only transient to area)
- increased air quality emissions during construction. A Federal Conformity decision (and mitigation) would be required
- temporary increased barge traffic during construction and dredged material placement operations
- disturbances of critical area and floodplain during Masonville Cove cleanup
- loss of recreational fishing that might occur within DMCF footprint
- increased noise during construction, dredged material placement operations, and subsequent site development and use
- permanent alteration of the viewshed from some vantages that would be consistent with the urban watershed and adjacent Cove

No other significant impacts are predicted. Consultations with State and Federal resource agencies are ongoing. Preliminary assessments indicate that no impacts to listed RTE species or species managed under the Magnuson Stevens Fishery Conservation and Management Act are likely. Section 106 consultations with the State Historic

Preservation Officer (SHPO) and National Park Service in accordance with the National Historic Preservation Act indicate that impacts to listed properties and landmarks are not likely.

The applicant must obtain any state or local permits that may be required. The applicant is required to obtain a water quality certification in accordance with Section 401 of the Clean Water Act. The USACE hereby requests that the MDE, Water Management Administration review the proposed discharges for compliance with the applicable water quality standards. The applicant has certified in their application that the proposed activity complies with, and will be conducted in a manner consistent with, the Maryland Coastal Zone Management Program. A preliminary review of the proposed project indicates the following:

The project would also be in compliance with Executive Order 12898 "Federal Actions to Address Environmental Justice in Minority and Low-Income Populations."

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which may reasonably be expected to accrue from the proposal, will be balanced against its reasonably foreseeable detriments. All factors that may be relevant to the proposal are considered, among these are conservation; economics; aesthetics; general environmental concerns; wetlands; cultural values; fish and wildlife values; flood hazards; floodplain values; land use; navigation; shoreline erosion and accretion; recreation; water supply and conservation; water and air quality; hazardous, toxic, and radioactive substances; threatened and endangered species; regional geology; aesthetics; energy needs; food and fiber production; safety; environmental justice; cumulative impacts; and the general needs and welfare of the public.

The evaluation of the impact of the work described above on the public interest will include application of the guidelines promulgated by the Administrator, U.S. Environmental Protection Agency, under authority of the Section 404 of the Clean Water Act.

The USACE and the Maryland Department of the Environment (MDE) are soliciting comments from the public, Federal, State, and local agencies and officials, and all other interested parties in order to evaluate the impacts of this proposed activity. Any comments received will be considered by the USACE and MDE to determine whether to issue, issue with conditions, or deny a permit or license for this proposal. To make this decision, comments are used to assess impacts on all of the resources listed above. Comments will be used in the preparation of the Final EIS pursuant to the NEPA. Comments are also used to determine the overall public interest of the proposed activity.

Comments must be received on or before July 7, 2006, to ensure consideration in final plan development. One public hearing will be held for the Masonville DMCF DEIS: June 21, 2006 in the Baum Auditorium at Harbor Hospital; 3001 S. Hanover Street, Baltimore, MD. The hearing will begin at 7 pm. Displays and representatives of the project team and the agencies listed above will be available at 6 pm to discuss points of interest. The hearing will provide an opportunity for the public to present oral and/or written comments. All persons and organizations that have an interest in the Masonville DMCF are urged to participate in the meeting.

All work is to be completed in accordance with the enclosed plan(s). If you have any questions concerning this matter or would like to submit written comments on the DEIS, please contact:

Mr. Jon Romeo  
ATTN: CENAB-OP-RMN  
P.O. Box 1715  
Baltimore, MD 21203  
U.S. Army Corps of Engineers - Baltimore District  
Phone: 410-962-6079  
e-mail: jon.romeo@usace.army.mil.

Questions or comments pertaining to the tidal waters in Maryland and the associated permits for this project should be directed to:

Maryland Department of the Environment  
Water Management Administration  
Attn: Robert Cuthbertson  
1800 Washington Blvd.  
Baltimore, MD 21230  
Phone: (410) 537-3845

Questions or comments pertaining to the non-tidal waters in Maryland and the associated permits for this project should be directed to:

Maryland Department of the Environment  
Water Management Administration  
Amanda Sigillito  
1800 Washington Blvd.  
Baltimore, MD 21230  
Phone: (410) 537-3766

Arrangements for hearing impaired or non-English speaking attendees may be made with

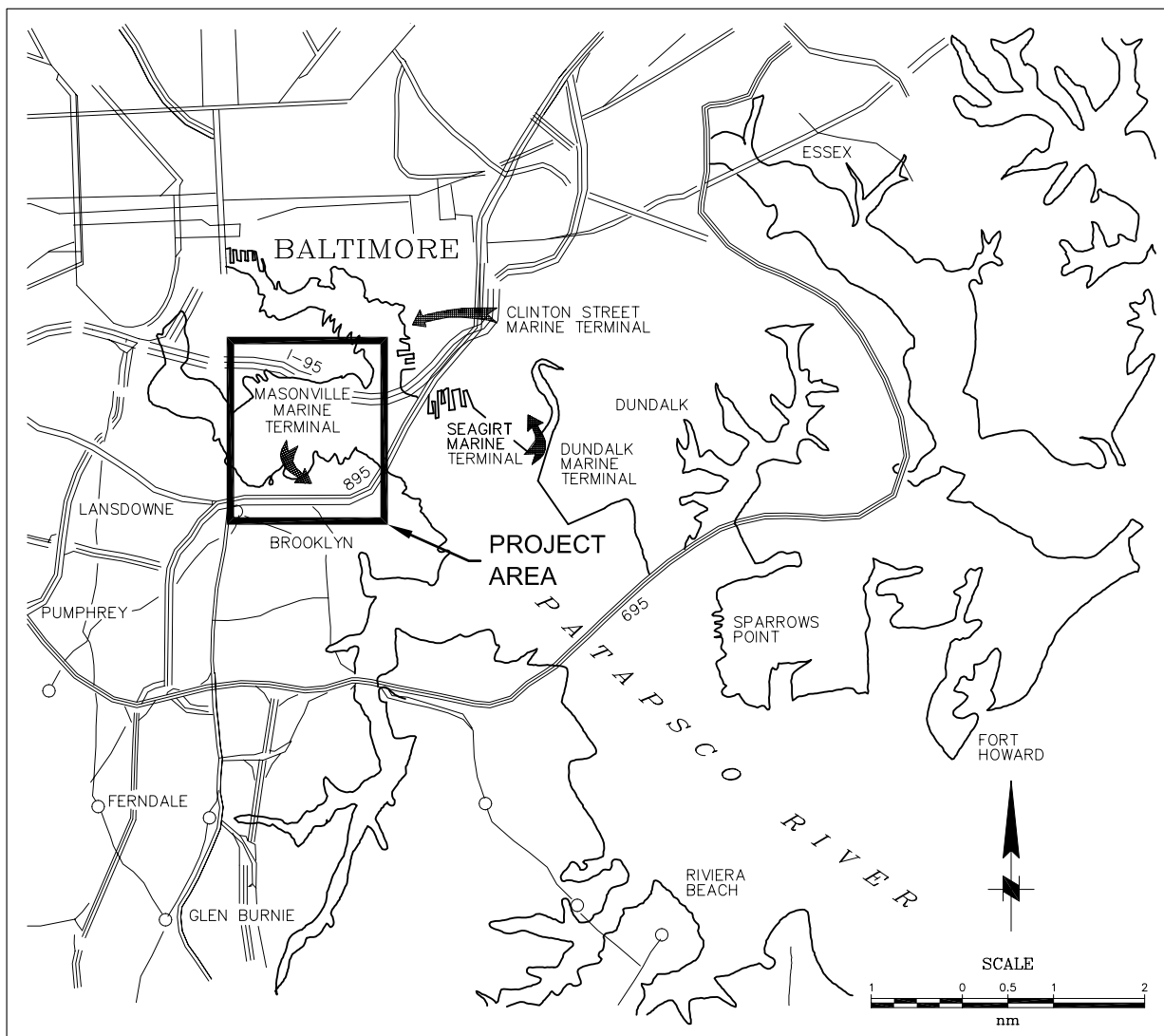
Ms. Stephanie Lindley  
Maryland Environmental Service  
259 Najoles Rd  
Millersville, MD 21108  
Phone: (410) 729-8337

Your comments must be contained in the body of your message; please do not send attached files. Please include your name and address in your message. You may view the Draft EIS for the Masonville DMCF and related information on the USACE web page at [http://www.nab.usace.army.mil/Regulatory/public\\_notices.htm](http://www.nab.usace.army.mil/Regulatory/public_notices.htm). USACE has distributed copies of the Draft EIS for the Masonville DMCF to appropriate members of Congress, State, and local government officials, Federal agencies, and other interested parties. Copies are also available for public review at the following locations:

- (1) Enoch Pratt Free Library, 400 Cathedral St., Baltimore, MD 21201-4484
- (2) Enoch Pratt Free Library, Cherry Hill Branch, 606 Cherry Hill Rd, Baltimore, MD 21225
- (3) Enoch Pratt Free Library, Brooklyn Branch, 300 E. Patapsco Ave, Baltimore, MD 21225
- (4) Baltimore County Public Library, Essex Branch, 1110 Eastern Blvd, Baltimore, MD 21221
- (5) Baltimore County Public Library, North Point Branch, 1716 Merritt Blvd, Dundalk, MD 21222

After the public comment period ends on July 7, 2006, the USACE will consider all comments received. The Draft EIS will be revised as appropriate and a Final EIS will be issued.

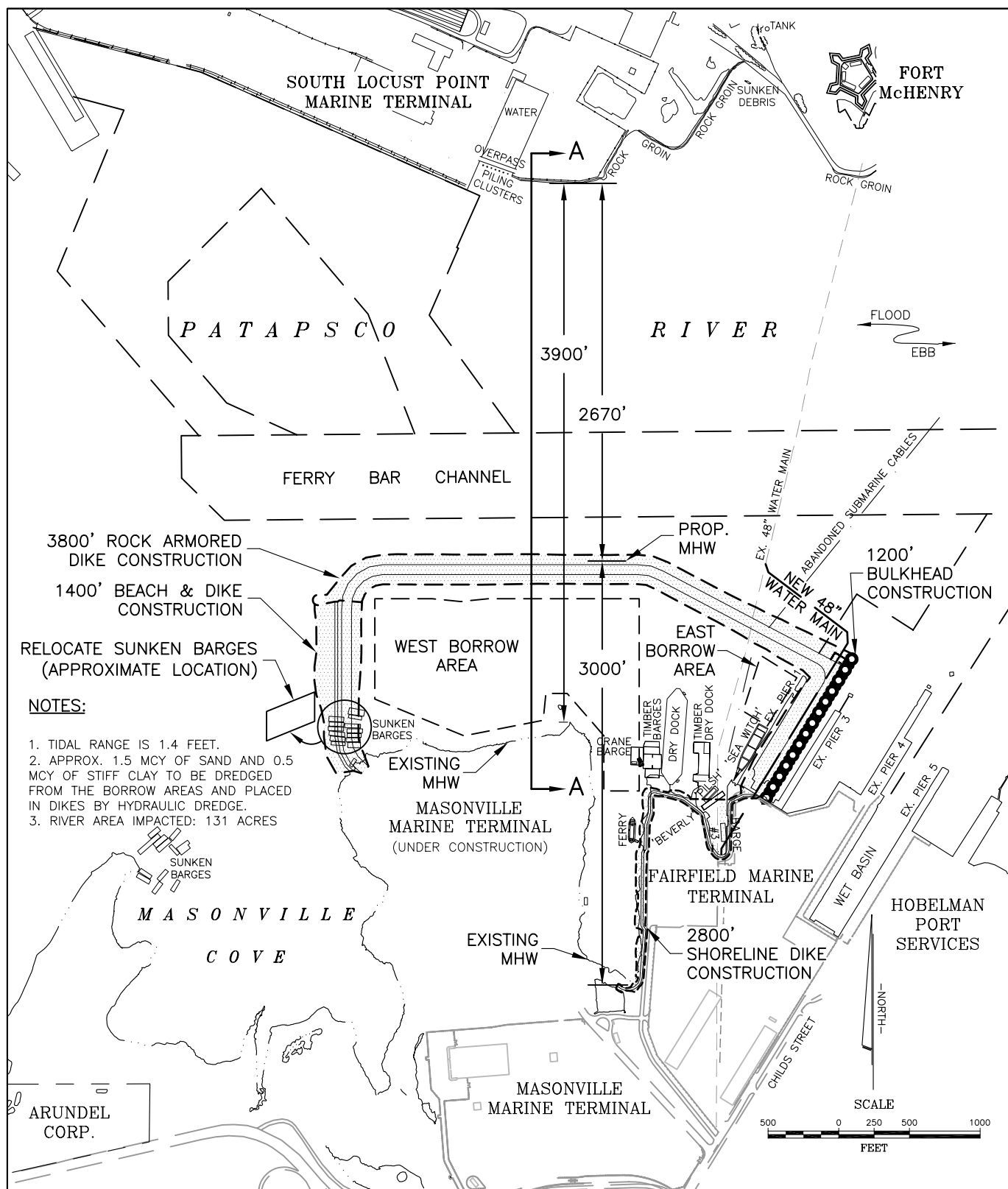
It is requested that you communicate the above information concerning the proposed work to any persons known to be interested who did not receive a copy of this notice.



APPLICATION BY: MARYLAND PORT  
ADMIN. — HARBOR DEVELOPMENT  
DATE: MAY 2006  
DATUM: MEAN LOW WATER (MLW)  
SCALE: 1" = 2 nm  
DRAWN BY: GAHAGAN & BRYANT ASSOC.

VICINITY MAP  
  
MASONVILLE DREDGED MATERIAL  
CONTAINMENT FACILITY  
  
BALTIMORE, MARYLAND

PROPOSED DREDGED MATERIAL  
CONTAINMENT FACILITY  
IN: PATAPSCO RIVER  
AT: BALTIMORE CITY

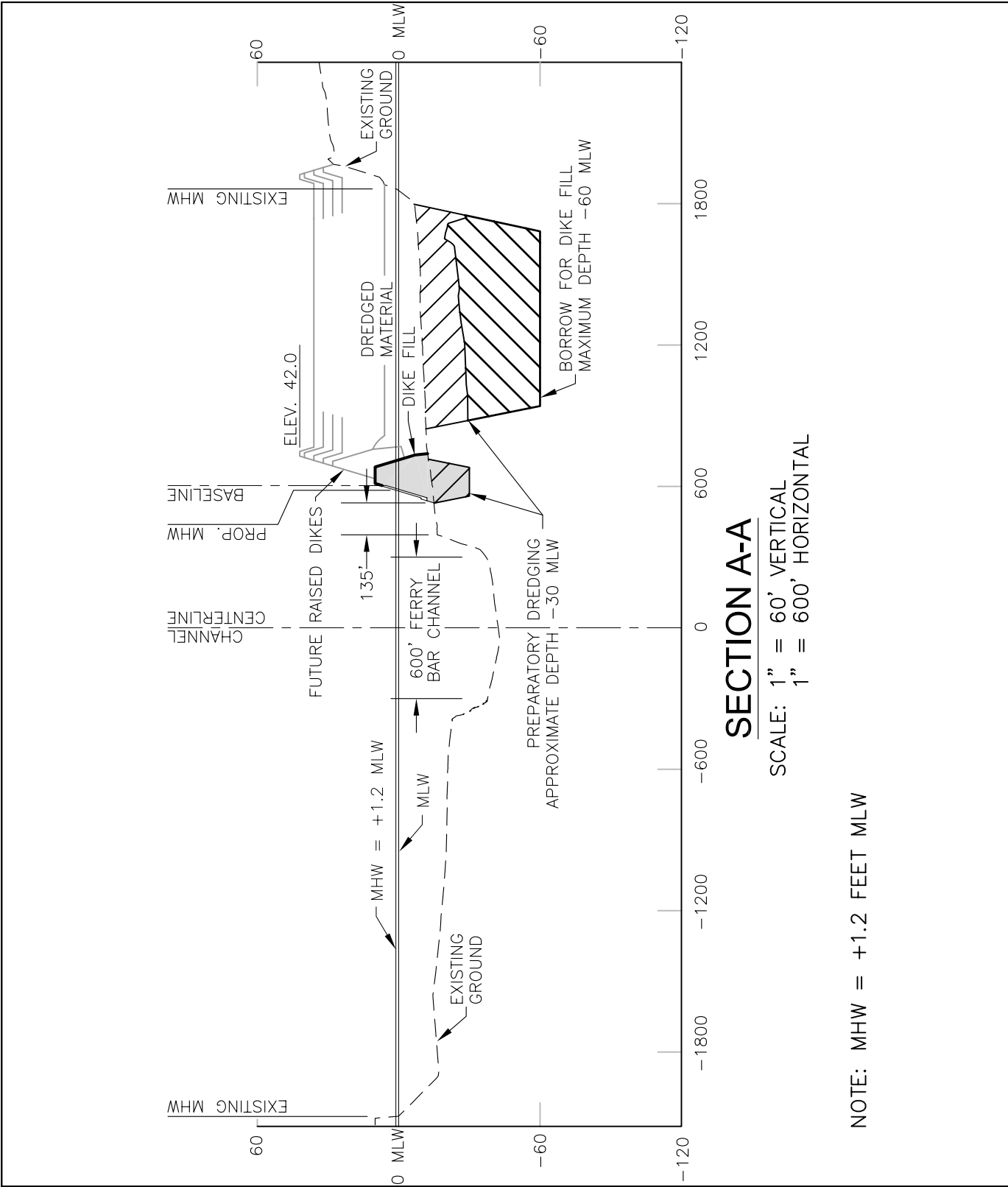


APPLICATION BY: MARYLAND PORT ADMIN. — HARBOR DEVELOPMENT  
DATE: MAY 2006  
DATUM: MEAN LOW WATER (MLW)  
SCALE: 1" = 1000'  
DRAWN BY: GAHAGAN & BRYANT ASSOC.

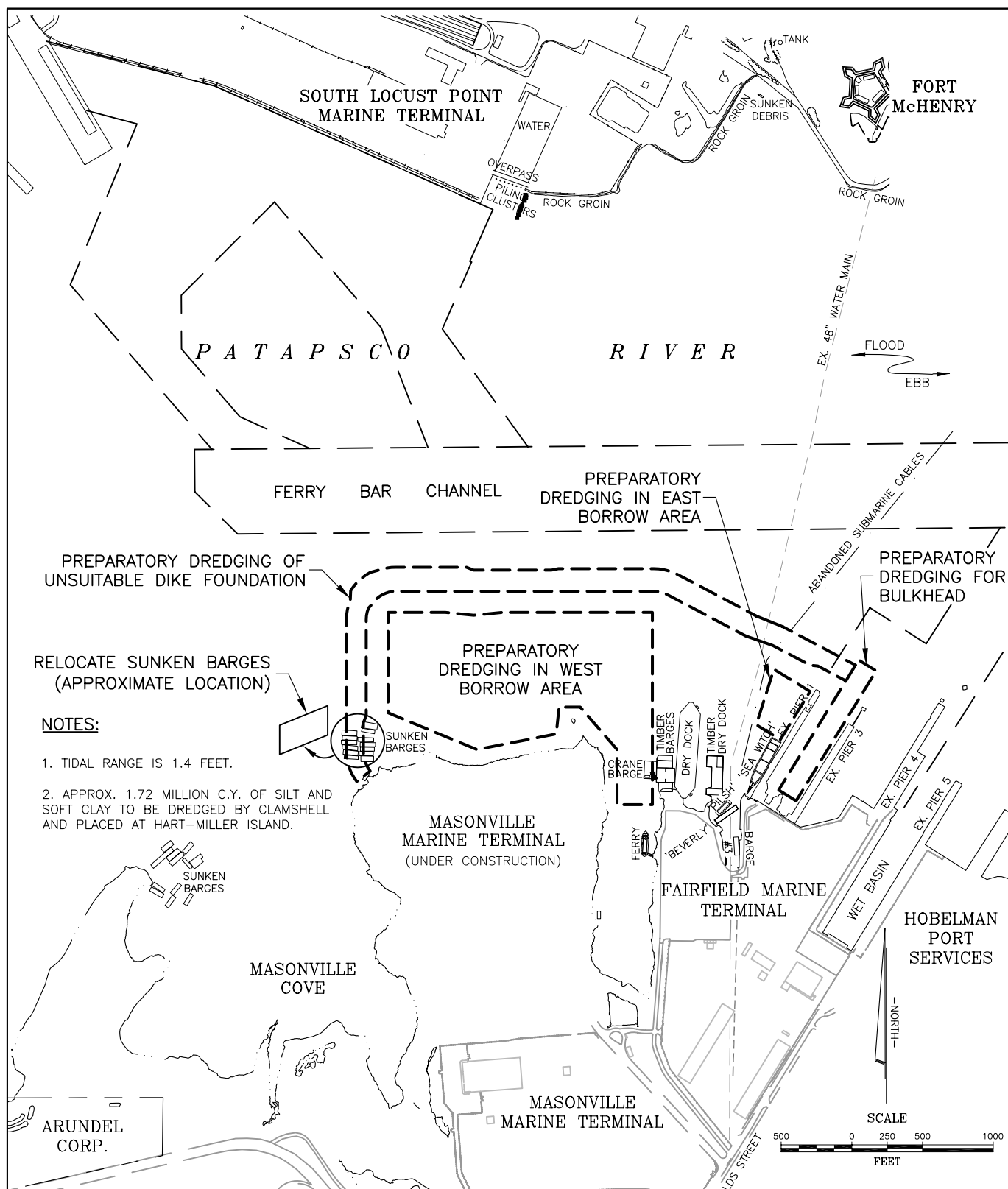
PATAPSCO RIVER ENCROACHMENT PLAN  
MASONVILLE DREDGED MATERIAL CONTAINMENT FACILITY  
BALTIMORE, MARYLAND

PROPOSED DREDGED MATERIAL CONTAINMENT FACILITY  
IN: PATAPSCO RIVER  
AT: BALTIMORE CITY





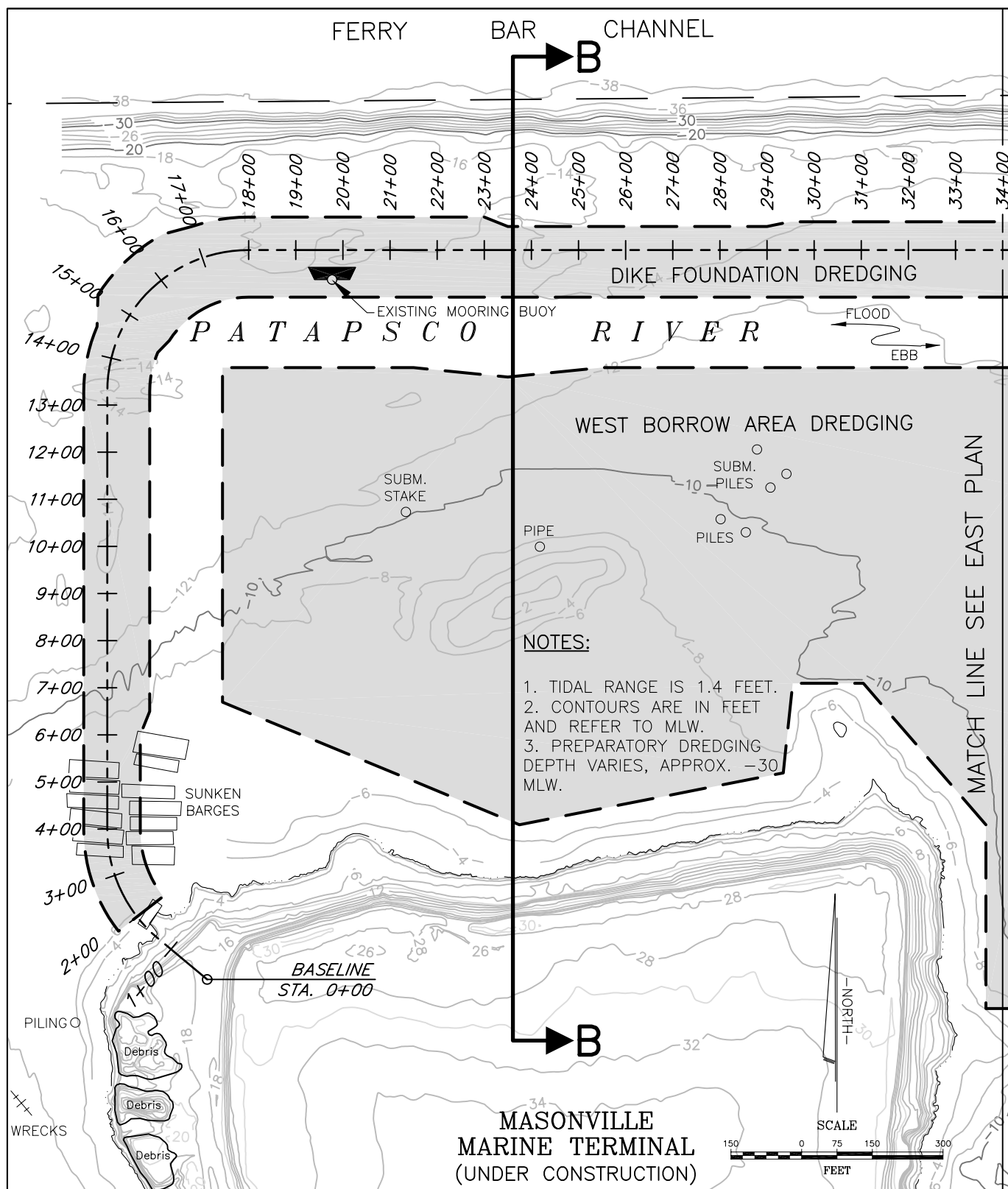
<p>APPLICATION BY: MARYLAND PORT ADMIN. — HARBOR DEVELOPMENT</p> <p>DATE: MAY 2006</p> <p>DATUM: MEAN LOW WATER (MLW)</p> <p>SCALE: AS SHOWN</p> <p>DRAWN BY: GAHAGAN &amp; BRYANT ASSOC.</p>	<p>PATAPSCO RIVER</p> <p>SECTION A-A</p> <p>MASONVILLE DREDGED MATERIAL CONTAINMENT FACILITY</p> <p>BALTIMORE, MARYLAND</p>	<p>PROPOSED DREDGED MATERIAL CONTAINMENT FACILITY</p> <p>IN: PATAPSCO RIVER</p> <p>AT: BALTIMORE CITY</p> <p>SHEET 03 OF 25</p>
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APPLICATION BY: MARYLAND PORT  
ADMIN. — HARBOR DEVELOPMENT  
DATE: MAY 2006  
DATUM: MEAN LOW WATER (MLW)  
SCALE: 1" = 1000'  
DRAWN BY: GAHAGAN & BRYANT ASSOC.

PREPARATORY DREDGING  
LOCATION PLAN  
MASONVILLE DREDGED MATERIAL  
CONTAINMENT FACILITY  
BALTIMORE, MARYLAND

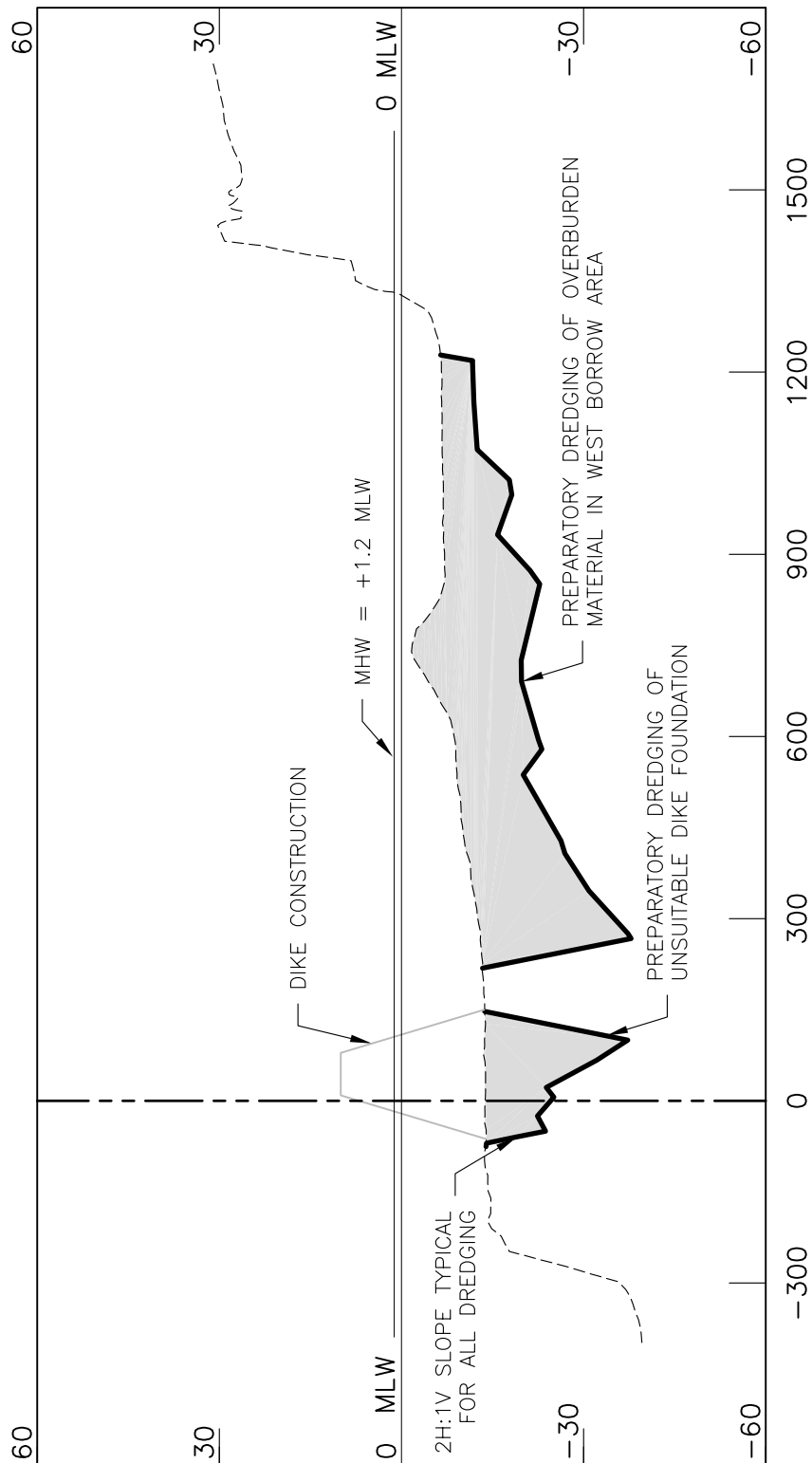
PROPOSED DREDGED MATERIAL  
CONTAINMENT FACILITY  
IN: PATAPSCO RIVER  
AT: BALTIMORE CITY



APPLICATION BY: MARYLAND PORT  
ADMIN. — HARBOR DEVELOPMENT  
DATE: MAY 2006  
DATUM: MEAN LOW WATER (MLW)  
SCALE: 1" = 300'  
DRAWN BY: GAHAGAN & BRYANT ASSOC.

WEST PREPARATORY  
DREDGING PLAN  
MASONVILLE DREDGED MATERIAL  
CONTAINMENT FACILITY  
BALTIMORE, MARYLAND

PROPOSED DREDGED MATERIAL  
CONTAINMENT FACILITY  
IN: PATAPSCO RIVER  
AT: BALTIMORE CITY



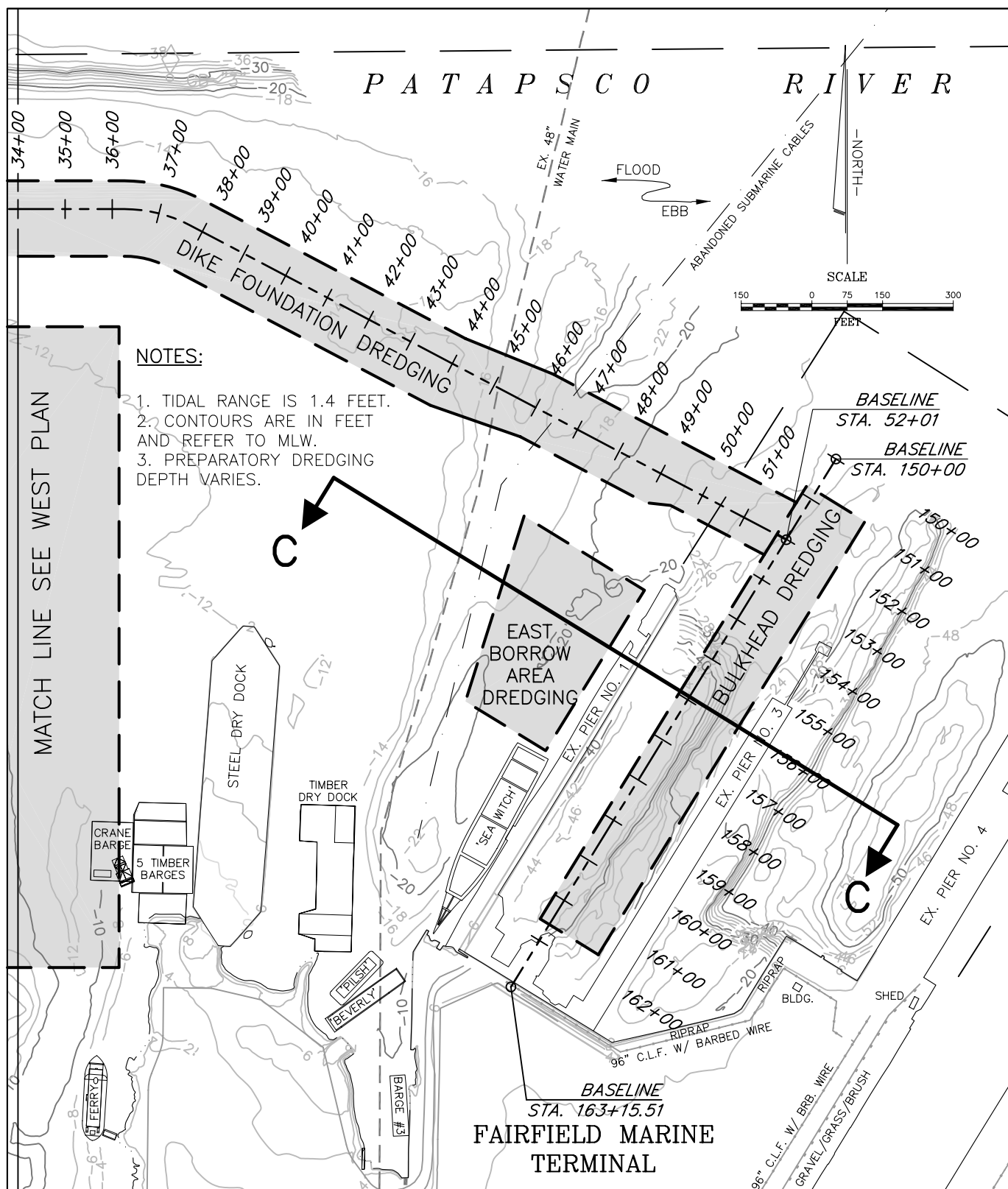
## SECTION B-B

SCALE: 1" = 30' VERTICAL  
1" = 300' HORIZONTAL

APPLICATION BY: MARYLAND PORT  
ADMIN. — HARBOR DEVELOPMENT  
DATE: MAY 2006  
DATUM: MEAN LOW WATER (MLW)  
SCALE: AS SHOWN  
DRAWN BY: GAHAGAN & BRYANT ASSOC.

PREPARATORY DREDGING  
SECTION B-B  
MASONVILLE DREDGED MATERIAL  
CONTAINMENT FACILITY  
BALTIMORE, MARYLAND

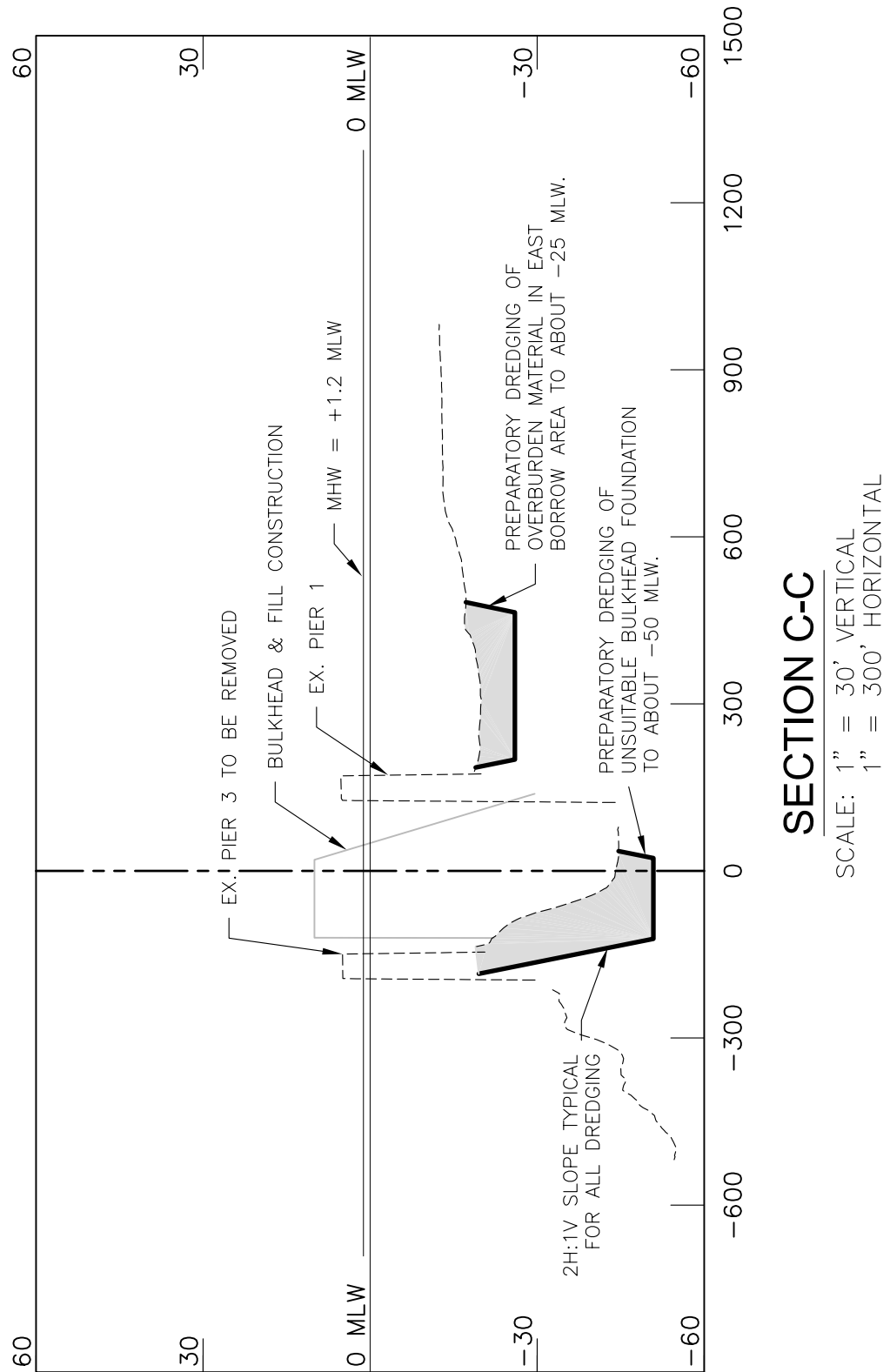
PROPOSED DREDGED MATERIAL  
CONTAINMENT FACILITY  
IN: PATAPSCO RIVER  
AT: BALTIMORE CITY



APPLICATION BY: MARYLAND PORT  
ADMIN. — HARBOR DEVELOPMENT  
DATE: MAY 2006  
DATUM: MEAN LOW WATER (MLW)  
SCALE: 1" = 300'  
DRAWN BY: GAHAGAN & BRYANT ASSOC.

EAST PREPARATORY  
DREDGING PLAN  
MASONVILLE DREDGED MATERIAL  
CONTAINMENT FACILITY  
BALTIMORE, MARYLAND

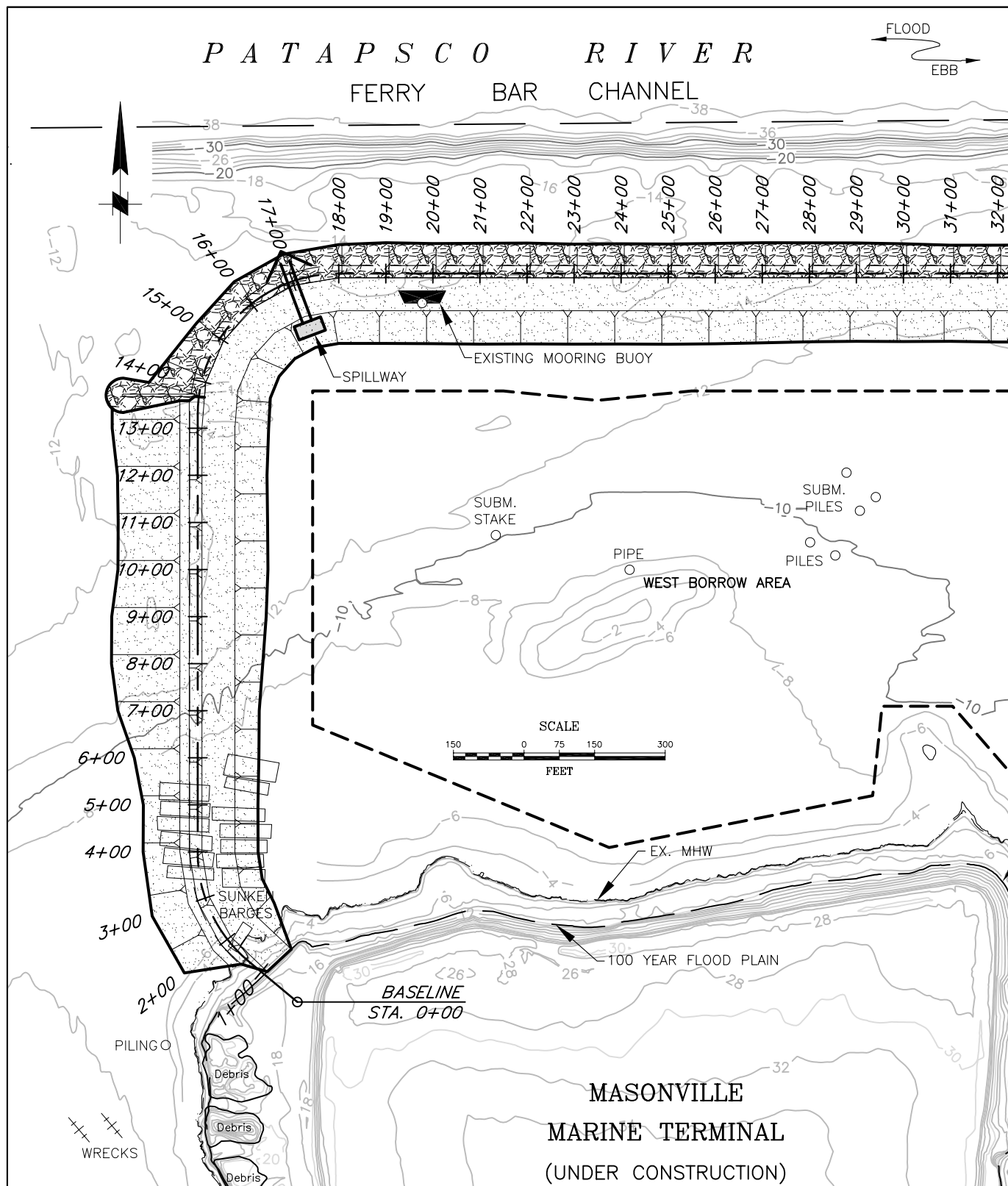
PROPOSED DREDGED MATERIAL  
CONTAINMENT FACILITY  
IN: PATAPSCO RIVER  
AT: BALTIMORE CITY



APPLICATION BY: MARYLAND PORT  
ADMIN. — HARBOR DEVELOPMENT  
DATE: MAY 2006  
DATUM: MEAN LOW WATER (MLW)  
SCALE: AS SHOWN  
DRAWN BY: GAHAGAN & BRYANT ASSOC.

PREPARATORY DREDGING  
SECTION C—C  
MASONVILLE DREDGED MATERIAL  
CONTAINMENT FACILITY  
BALTIMORE, MARYLAND

PROPOSED DREDGED MATERIAL  
CONTAINMENT FACILITY  
IN: PATAPSCO RIVER  
AT: BALTIMORE CITY



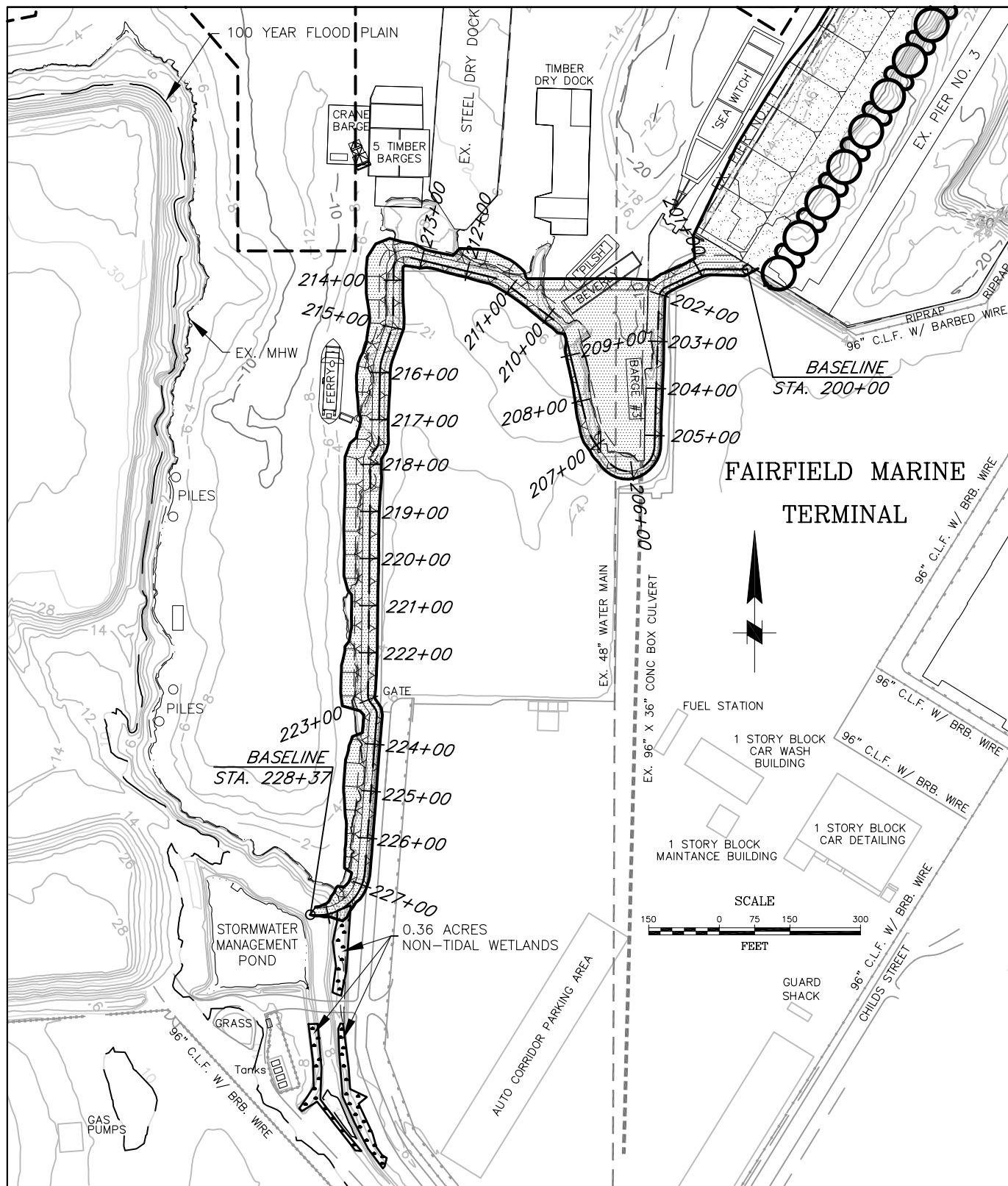
APPLICATION BY: MARYLAND PORT  
ADMIN. — HARBOR DEVELOPMENT  
DATE: MAY 2006  
DATUM: MEAN LOW WATER (MLW)  
SCALE: 1" = 300'  
DRAWN BY: GAHAGAN & BRYANT ASSOC.

BEACH AND ARMOR DIKE  
WEST PLAN  
MASONVILLE DREDGED MATERIAL  
CONTAINMENT FACILITY  
BALTIMORE, MARYLAND

PROPOSED DREDGED MATERIAL  
CONTAINMENT FACILITY  
IN: PATAPSCO RIVER  
AT: BALTIMORE CITY



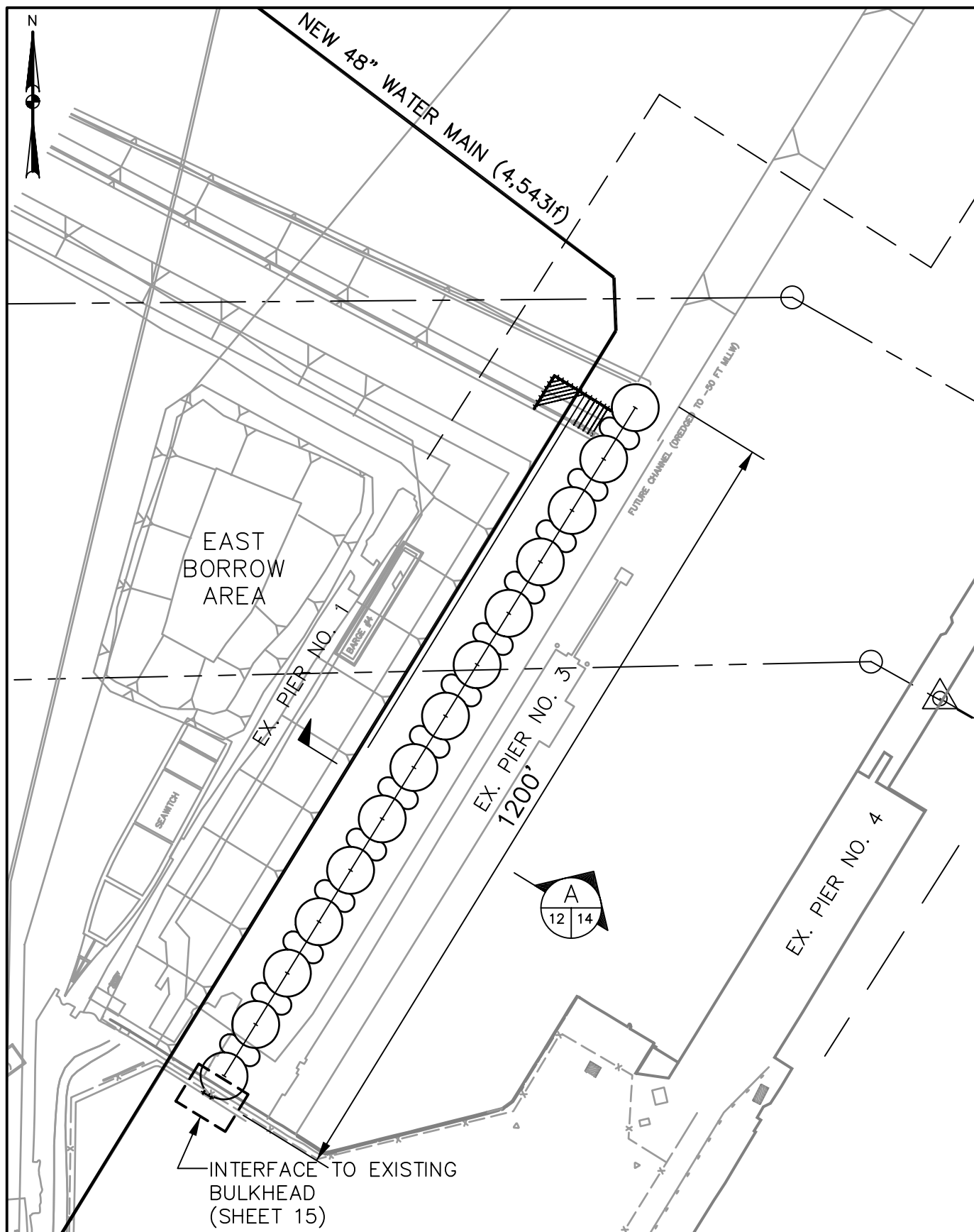




APPLICATION BY: MARYLAND PORT  
ADMIN. — HARBOR DEVELOPMENT  
DATE: MAY 2006  
DATUM: MEAN LOW WATER (MLW)  
SCALE: 1" = 300'  
DRAWN BY: GAHAGAN & BRYANT ASSOC.

SHORELINE DIKE  
PLAN  
MASONVILLE DREDGED MATERIAL  
CONTAINMENT FACILITY  
BALTIMORE, MARYLAND

PROPOSED DREDGED MATERIAL  
CONTAINMENT FACILITY  
IN: PATAPSCO RIVER  
AT: BALTIMORE CITY

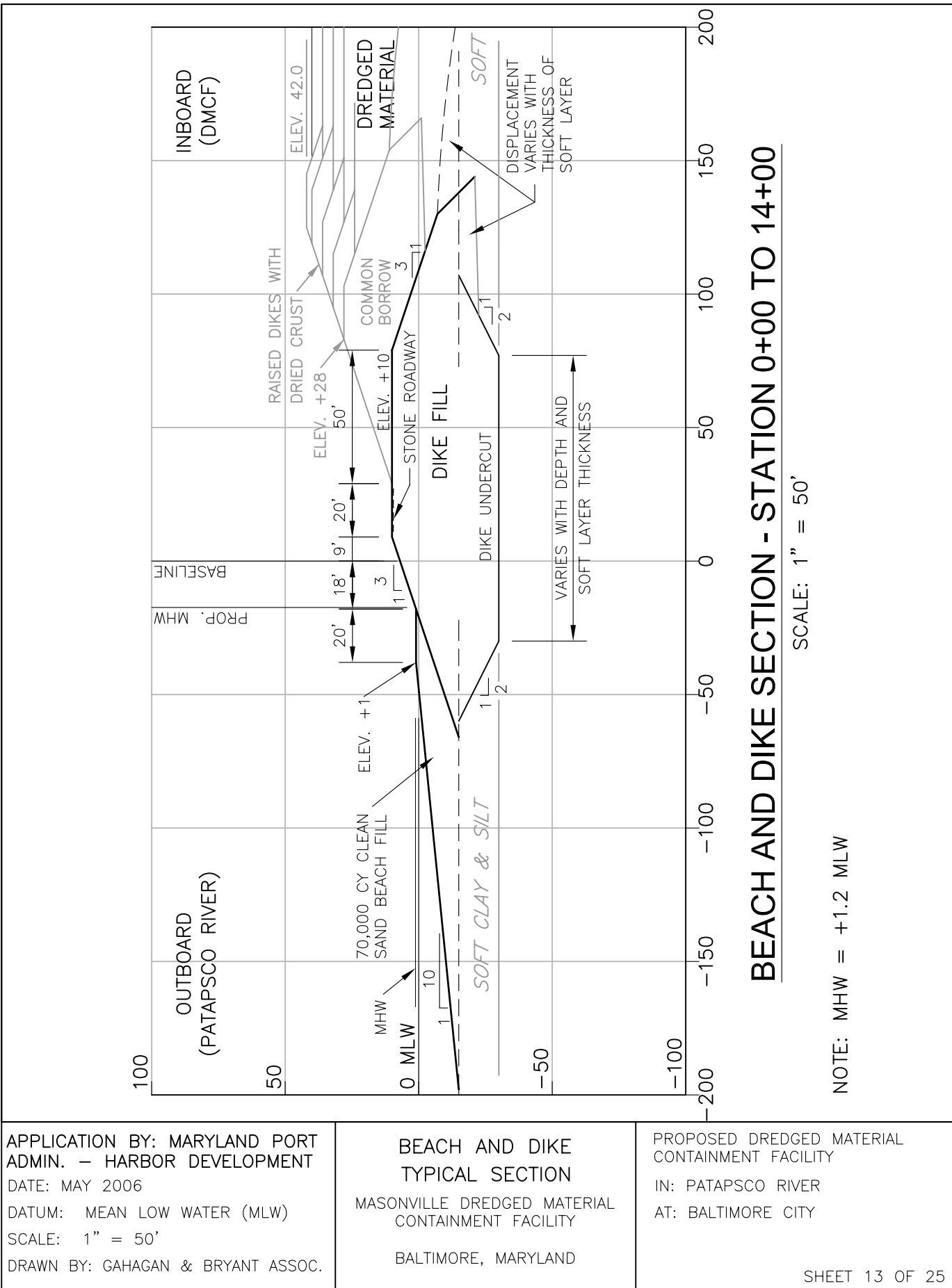


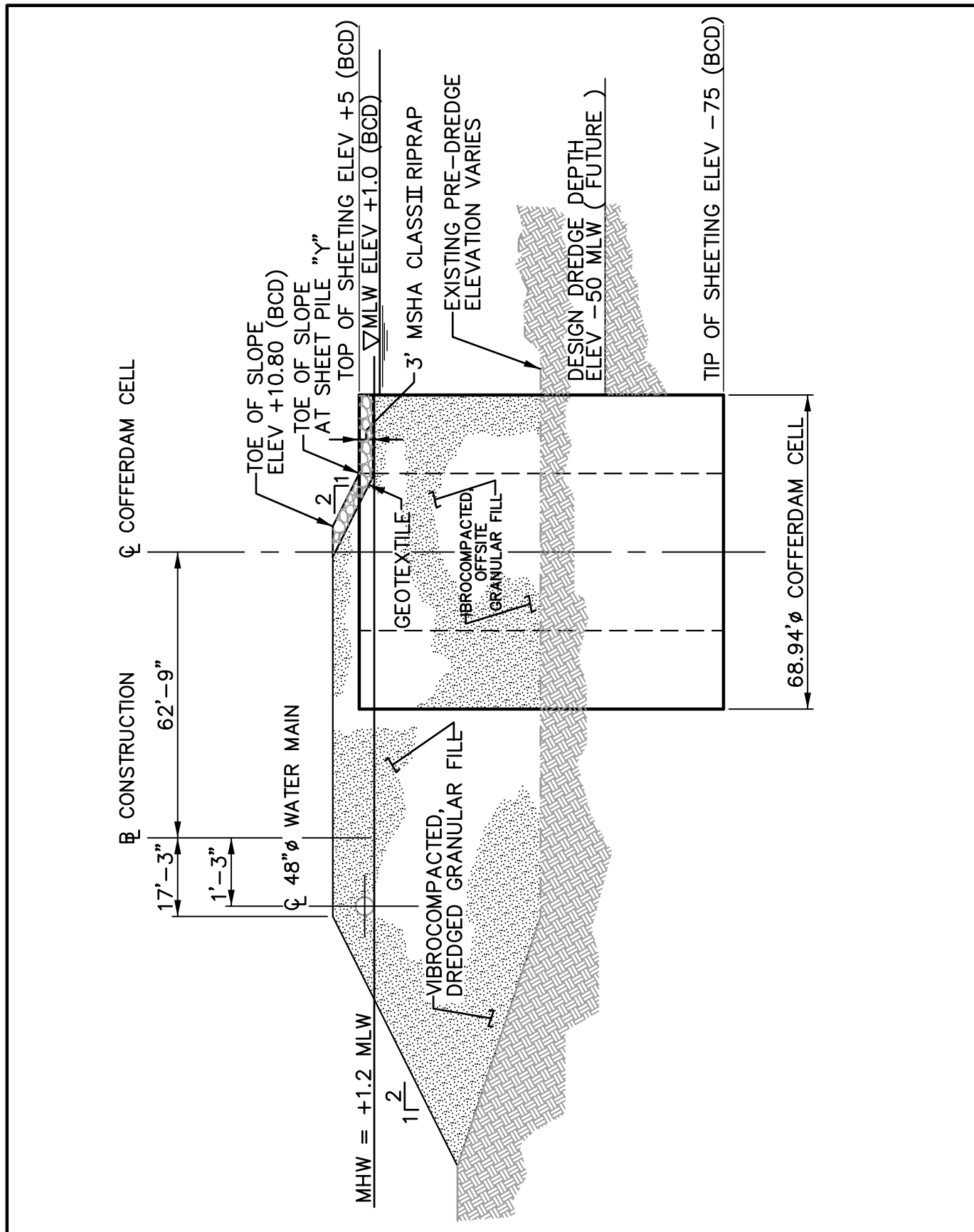
APPLICATION BY: MARYLAND PORT  
ADMIN. — HARBOR DEVELOPMENT  
DATE: MAY 2006  
DATUM: MEAN LOW WATER (MLW)  
SCALE: 1" = 200'  
DRAWN BY: MOFFATT & NICHOL

**COFFERDAM BULKHEAD  
AND  
48" WATER MAIN**  
MASONVILLE DREDGED MATERIAL  
CONTAINMENT FACILITY  
BALTIMORE, MARYLAND

PROPOSED DREDGED MATERIAL  
CONTAINMENT FACILITY  
IN: PATAPSCO RIVER  
AT: BALTIMORE CITY

SHEET 12 OF 25



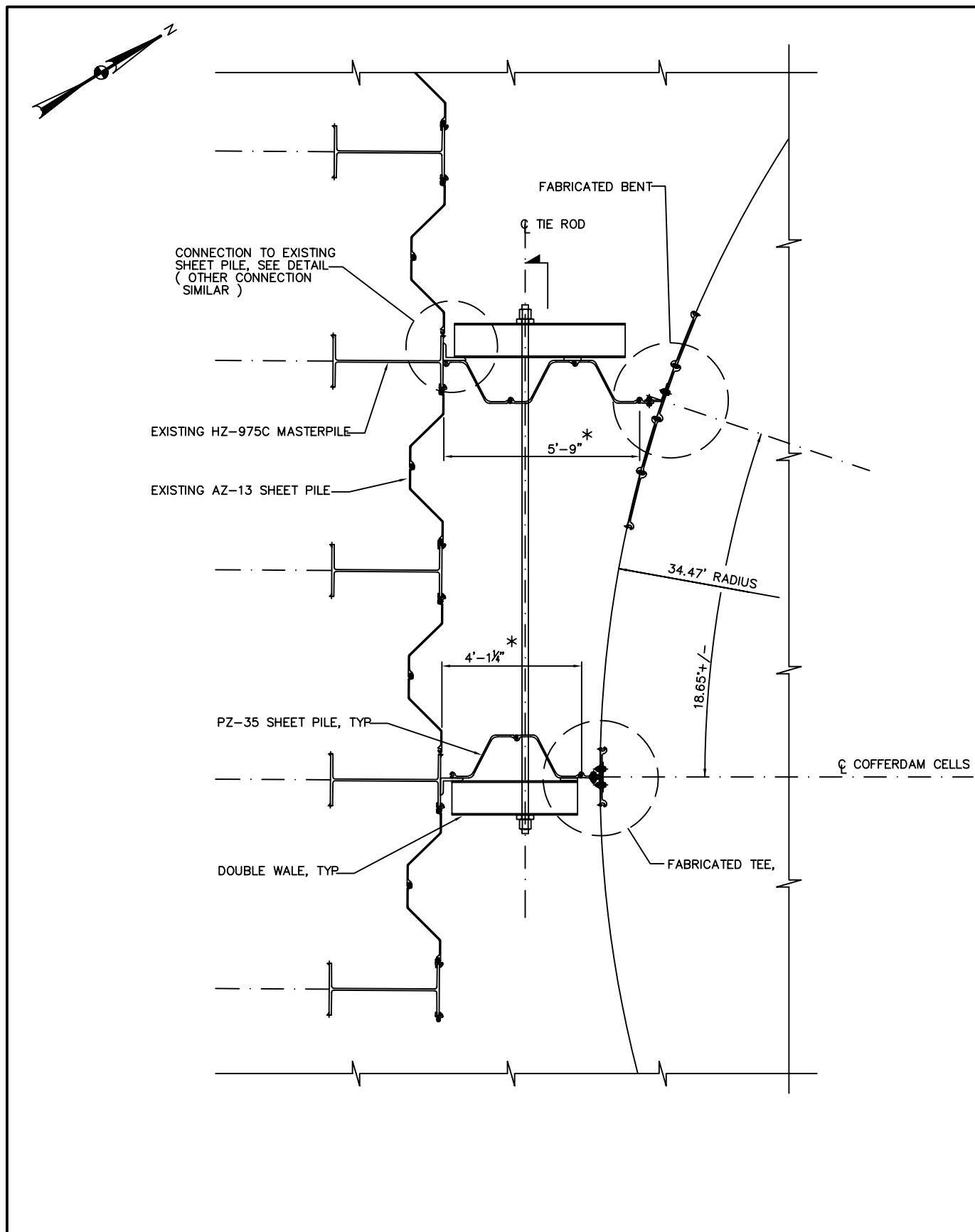


APPLICATION BY: MARYLAND PORT  
 ADMIN. — HARBOR DEVELOPMENT  
 DATE: MAY 2006  
 DATUM: MEAN LOW WATER (MLW)  
 SCALE: 1" = 30'  
 DRAWN BY: MOFFATT & NICHOL

**SECTION 'A'**  
**COFFERDAM BULKHEAD**  
**RETENTION STRUCTURE**

MASONVILLE DREDGED MATERIAL  
 CONTAINMENT FACILITY  
 BALTIMORE, MARYLAND

PROPOSED DREDGED MATERIAL  
 CONTAINMENT FACILITY  
 IN: PATAPSCO RIVER  
 AT: BALTIMORE CITY

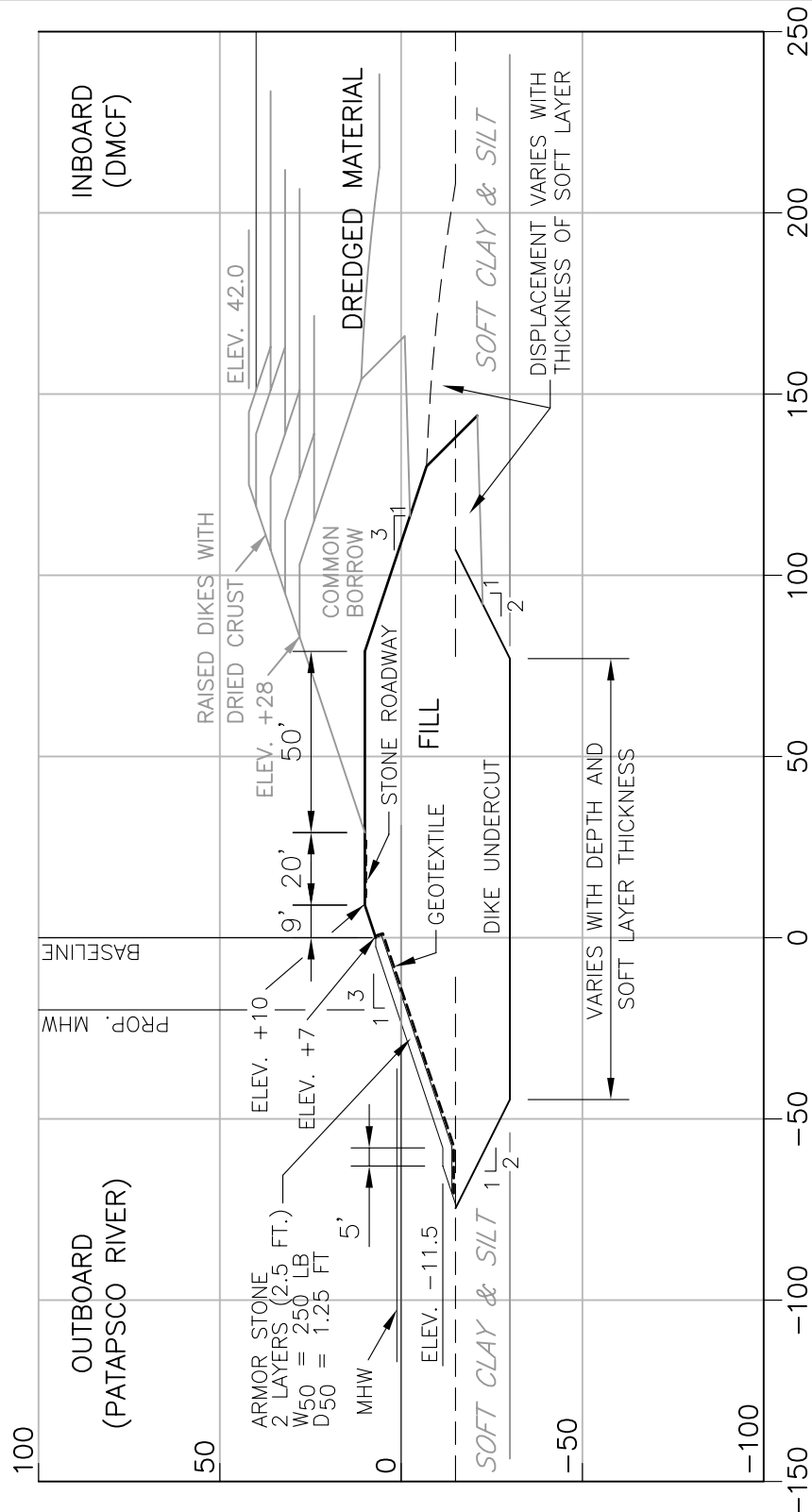


APPLICATION BY: MARYLAND PORT  
ADMIN. — HARBOR DEVELOPMENT  
DATE: MAY 2006  
DATUM: MEAN LOW WATER (MLW)  
SCALE: 1/4" = 1'-0"  
DRAWN BY: MOFFATT & NICHOL

**PARTIAL PLAN  
NEW BULKHEAD  
CONNECTION TO  
EXISTING BULKHEAD**  
MASONVILLE DREDGED MATERIAL  
CONTAINMENT FACILITY  
BALTIMORE, MARYLAND

PROPOSED DREDGED MATERIAL  
CONTAINMENT FACILITY  
IN: PATAPSCO RIVER  
AT: BALTIMORE CITY

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## ARMORED DIKE SECTION - STATION 14+00 TO 52+01

SCALE: 1" = 50'

NOTE: MHW = +1.2 MLW

APPLICATION BY: MARYLAND PORT  
ADMIN. — HARBOR DEVELOPMENT  
DATE: MAY 2006  
DATUM: MEAN LOW WATER (MLW)  
SCALE: 1" = 50'  
DRAWN BY: GAHAGAN & BRYANT ASSOC.

ARMORED DIKE  
TYPICAL SECTION

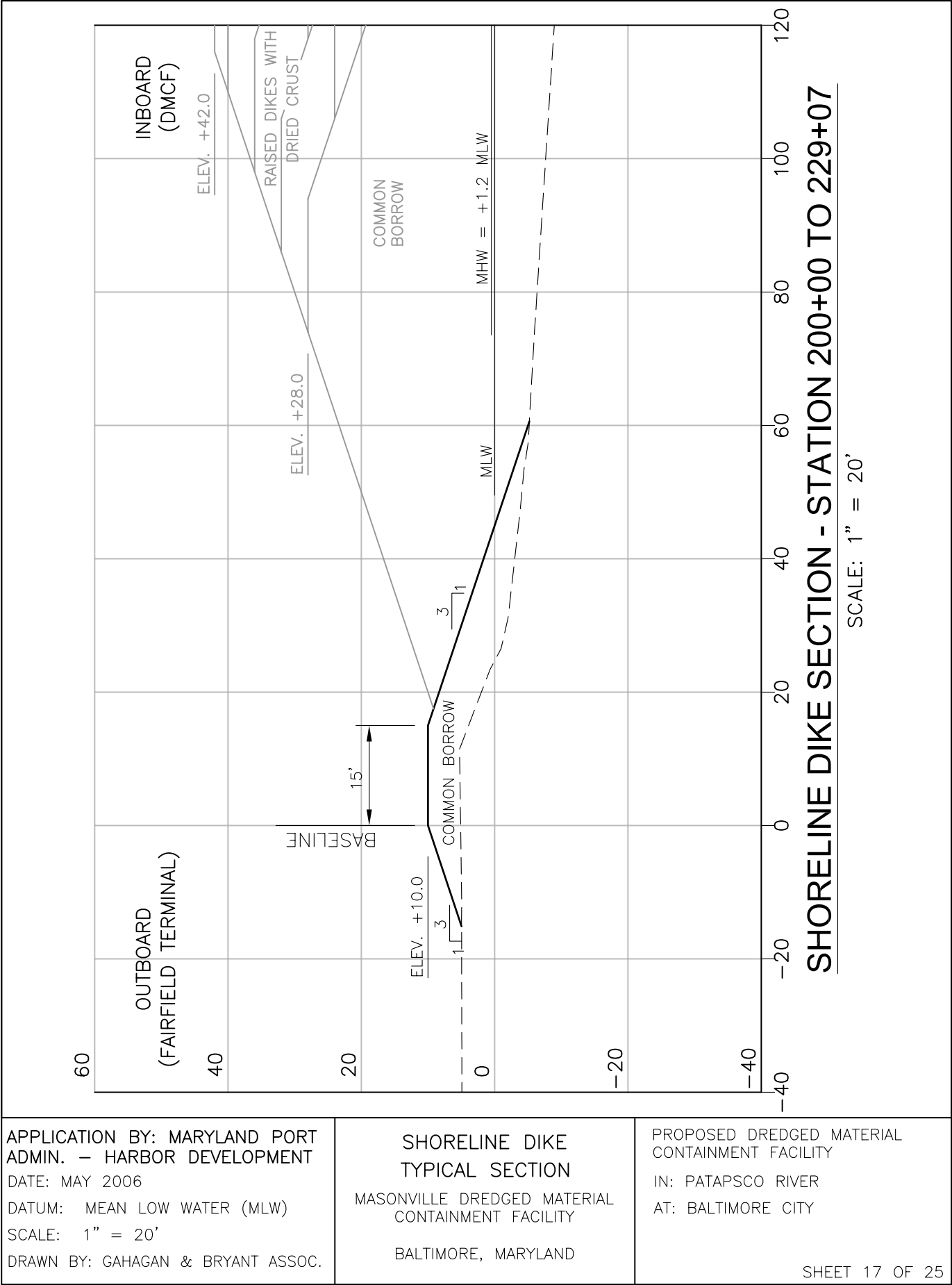
MASONVILLE DREDGED MATERIAL  
CONTAINMENT FACILITY

BALTIMORE, MARYLAND

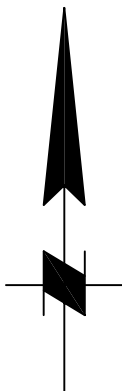
## PROPOSED DREDGED MATERIAL CONTAINMENT FACILITY

IN: PATAPSCO RIVER

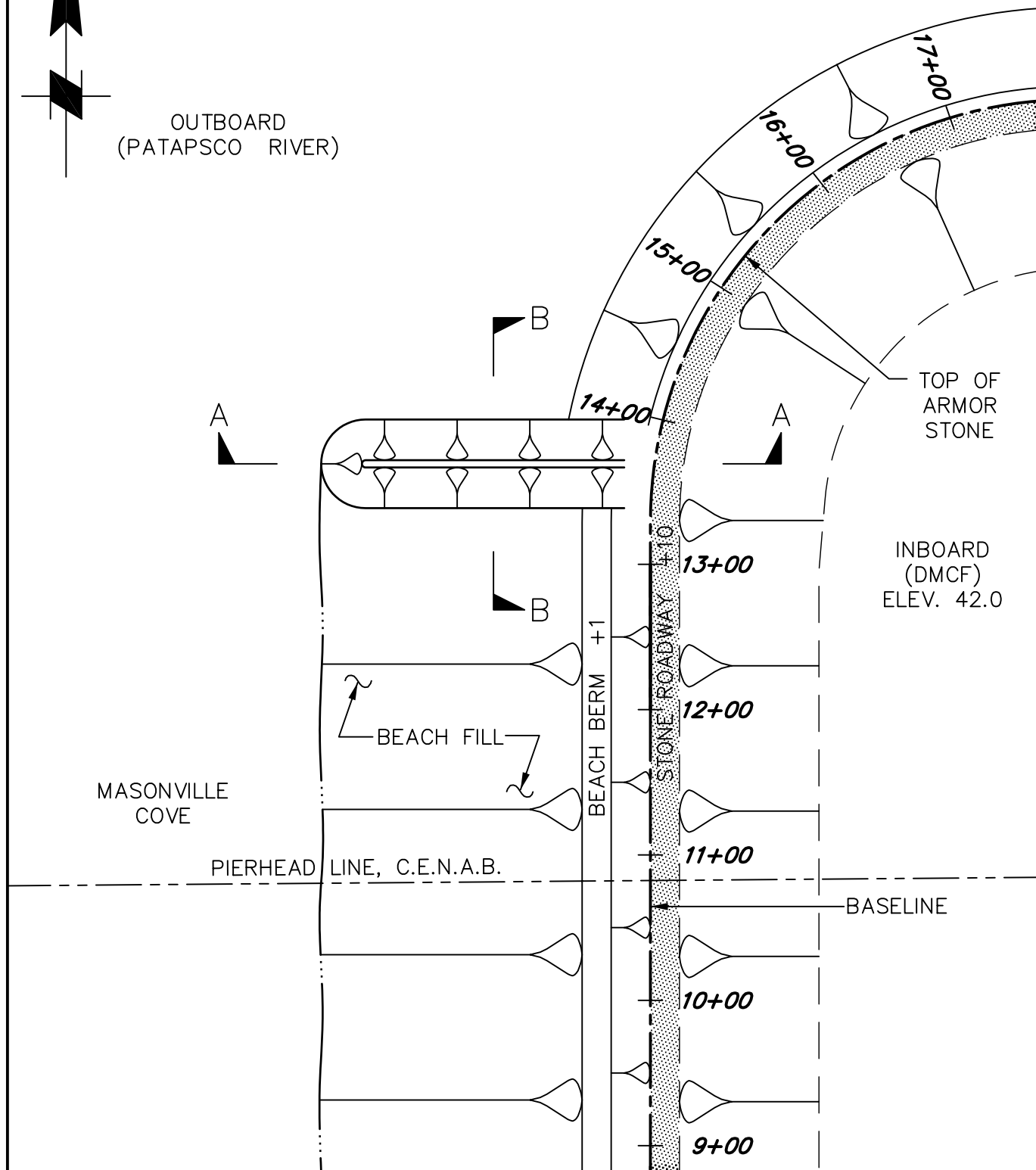
AT: BALTIMORE CITY



<p>APPLICATION BY: MARYLAND PORT ADMIN. – HARBOR DEVELOPMENT</p> <p>DATE: MAY 2006</p> <p>DATUM: MEAN LOW WATER (MLW)</p> <p>SCALE: 1" = 20'</p> <p>DRAWN BY: GAHAGAN &amp; BRYANT ASSOC.</p>	<p>SHORELINE DIKE TYPICAL SECTION</p> <p>MASONVILLE DREDGED MATERIAL CONTAINMENT FACILITY</p> <p>BALTIMORE, MARYLAND</p>	<p>PROPOSED DREDGED MATERIAL CONTAINMENT FACILITY</p> <p>IN: PATAPSCO RIVER</p> <p>AT: BALTIMORE CITY</p>
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OUTBOARD  
(PATAPSCO RIVER)



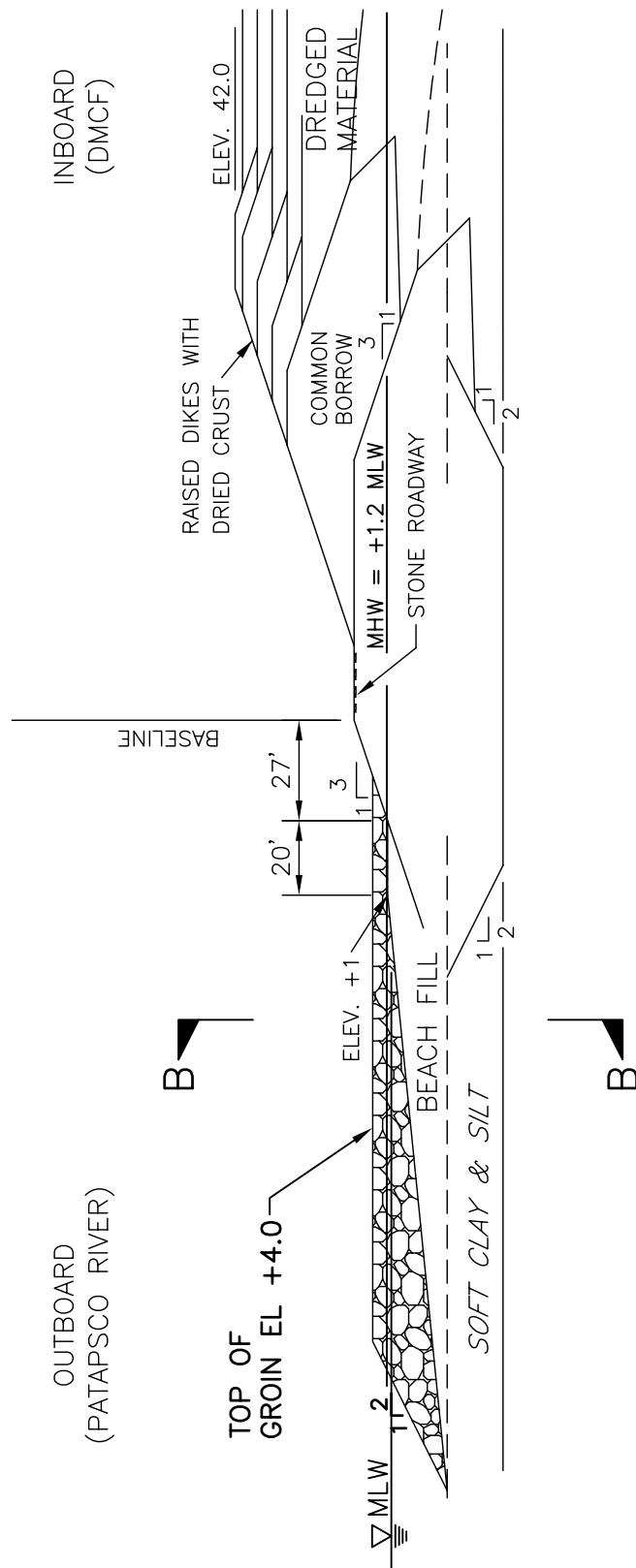
APPLICATION BY: MARYLAND PORT  
ADMIN. — HARBOR DEVELOPMENT  
DATE: MAY 2006  
DATUM: MEAN LOW WATER (MLW)  
SCALE: 1" = 100'  
DRAWN BY: MOFFATT & NICHOL

**MASONVILLE COVE  
GROIN LOCATION  
STATION 13+70**  
MASONVILLE DREDGED MATERIAL  
CONTAINMENT FACILITY  
BALTIMORE, MARYLAND

PROPOSED DREDGED MATERIAL  
CONTAINMENT FACILITY  
IN: PATAPSCO RIVER  
AT: BALTIMORE CITY

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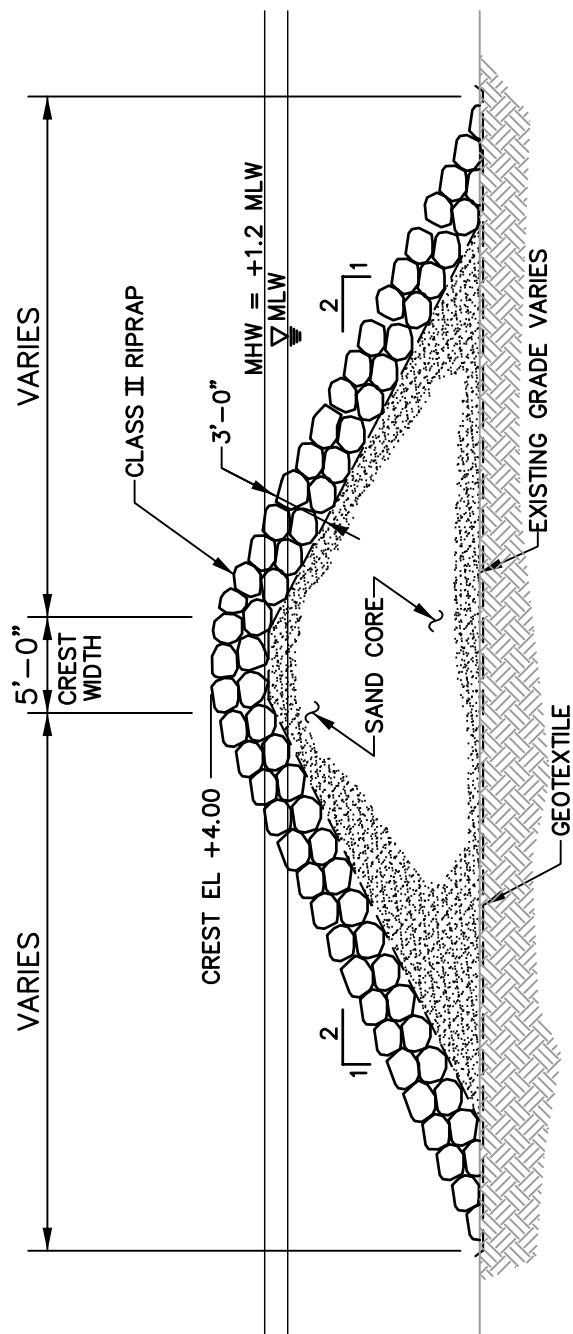




APPLICATION BY: MARYLAND PORT  
ADMIN. — HARBOR DEVELOPMENT  
DATE: MAY 2006  
DATUM: MEAN LOW WATER (MLW)  
SCALE: 1" = 50'  
DRAWN BY: MOFFATT & NICHOL

**MASONVILLE COVE  
GROIN SECTION 'A'  
STATION 13+70**  
MASONVILLE DREDGED MATERIAL  
CONTAINMENT FACILITY  
BALTIMORE, MARYLAND

PROPOSED DREDGED MATERIAL  
CONTAINMENT FACILITY  
IN: PATAPSCO RIVER  
AT: BALTIMORE CITY



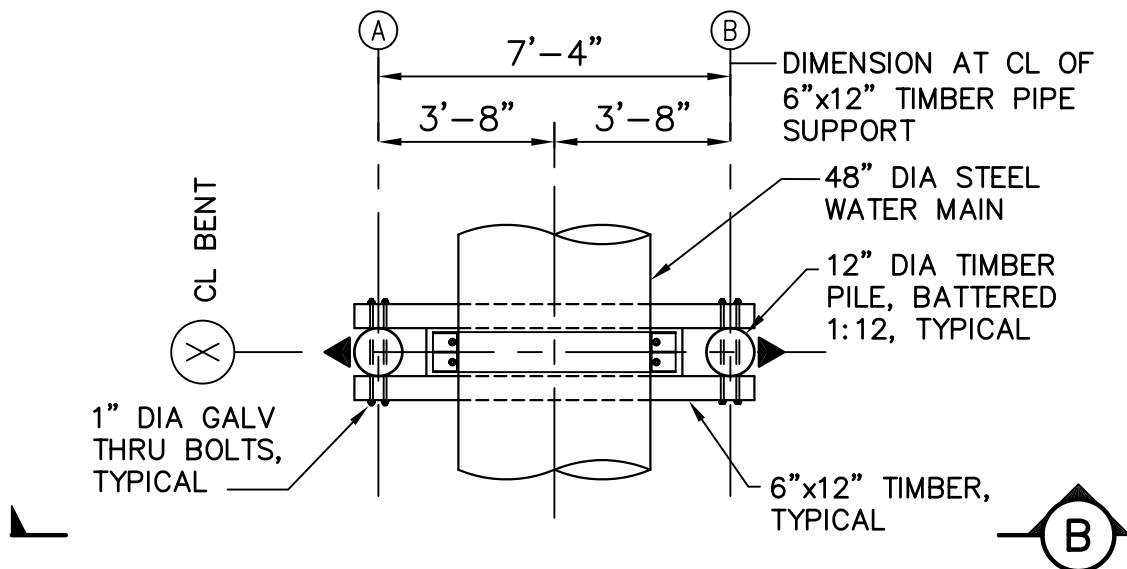
APPLICATION BY: MARYLAND PORT  
ADMIN. — HARBOR DEVELOPMENT  
DATE: MAY 2006  
DATUM: MEAN LOW WATER (MLW)  
SCALE: 1" = 10'  
DRAWN BY: MOFFATT & NICHOL

## MASONVILLE COVE GROIN SECTION 'B'

MASONVILLE DREDGED MATERIAL  
CONTAINMENT FACILITY  
BALTIMORE, MARYLAND

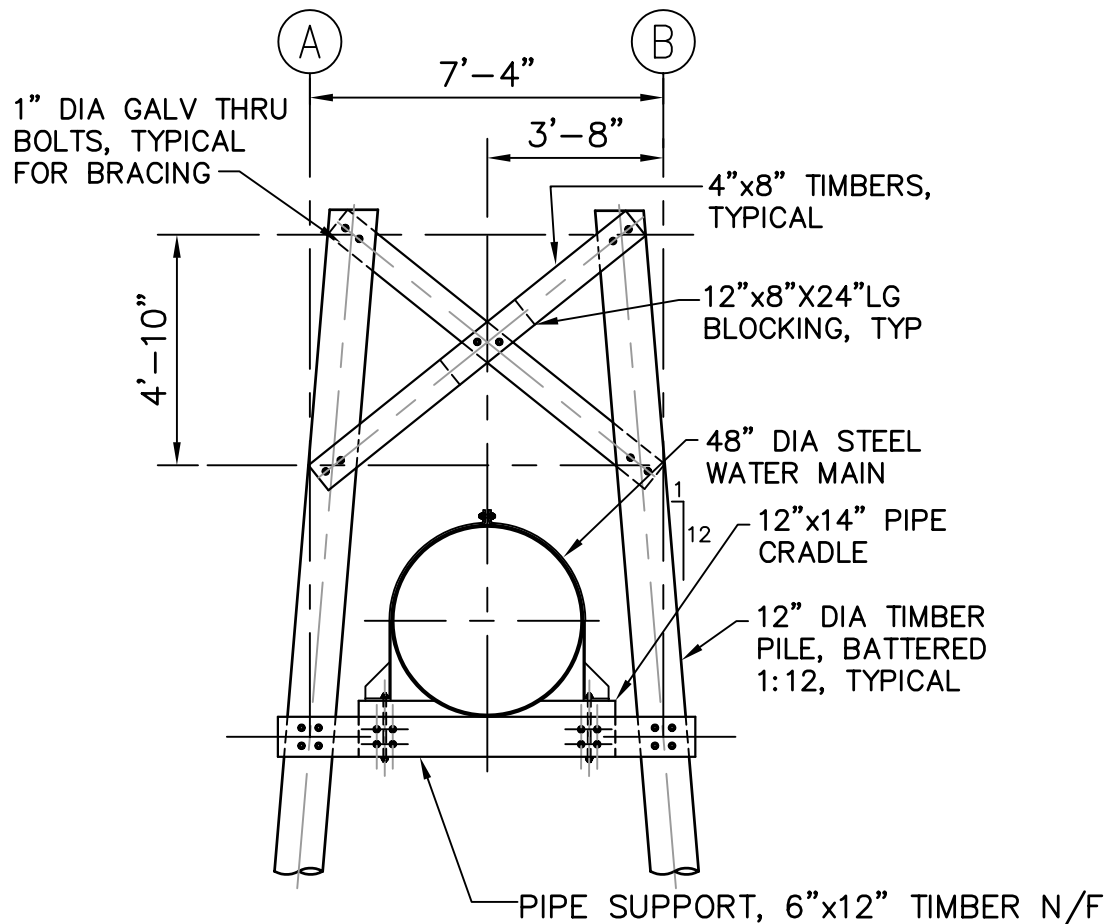
PROPOSED DREDGED MATERIAL  
CONTAINMENT FACILITY  
IN: PATAPSCO RIVER  
AT: BALTIMORE CITY

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## LOWER PLAN – PILE PIPE SUPPORT BENT

SCALE: 1/4" = 1'-0"



## SECTION 'B'

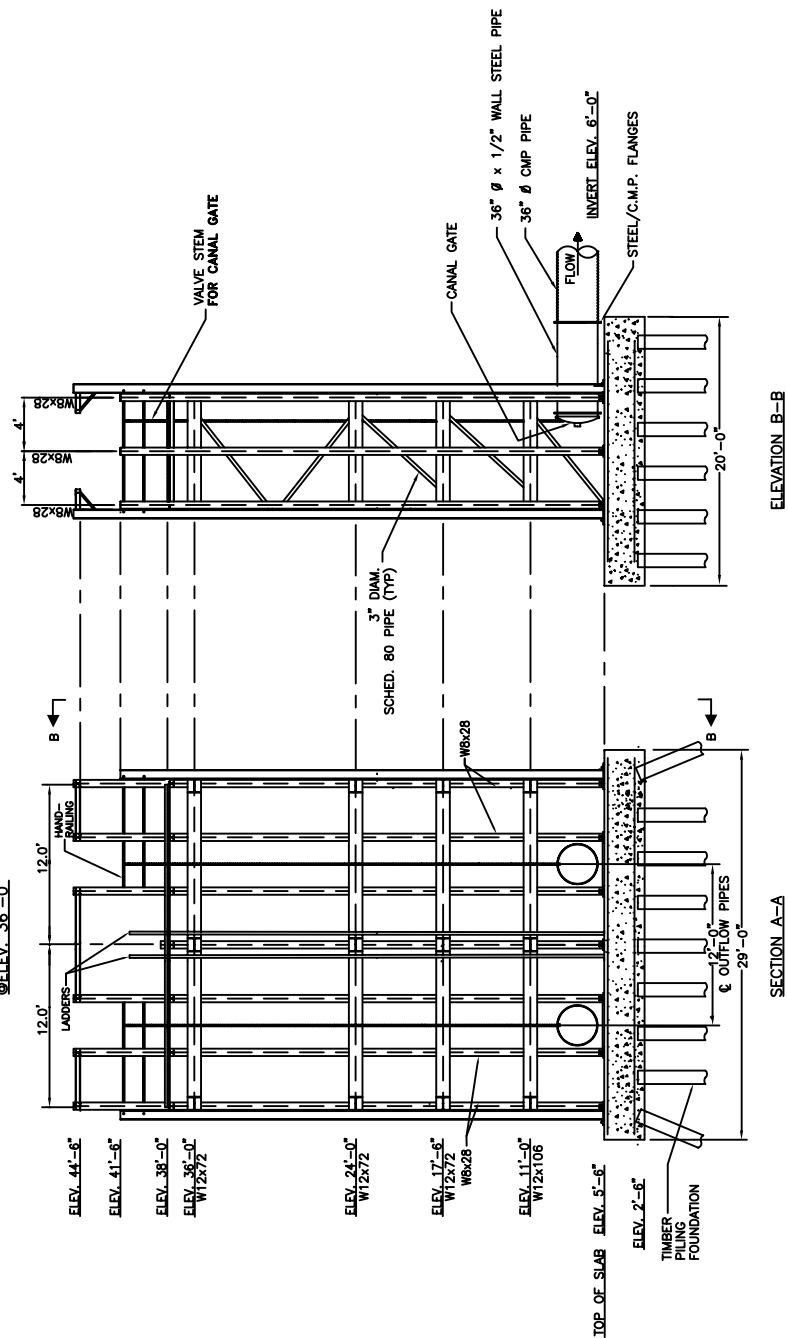
SCALE: 1/4" = 1'-0"

APPLICATION BY: MARYLAND PORT  
ADMIN. – HARBOR DEVELOPMENT  
DATE: MAY 2006  
DATUM: MEAN LOW WATER (MLW)  
SCALE: AS SHOWN  
DRAWN BY: MOFFATT & NICHOL

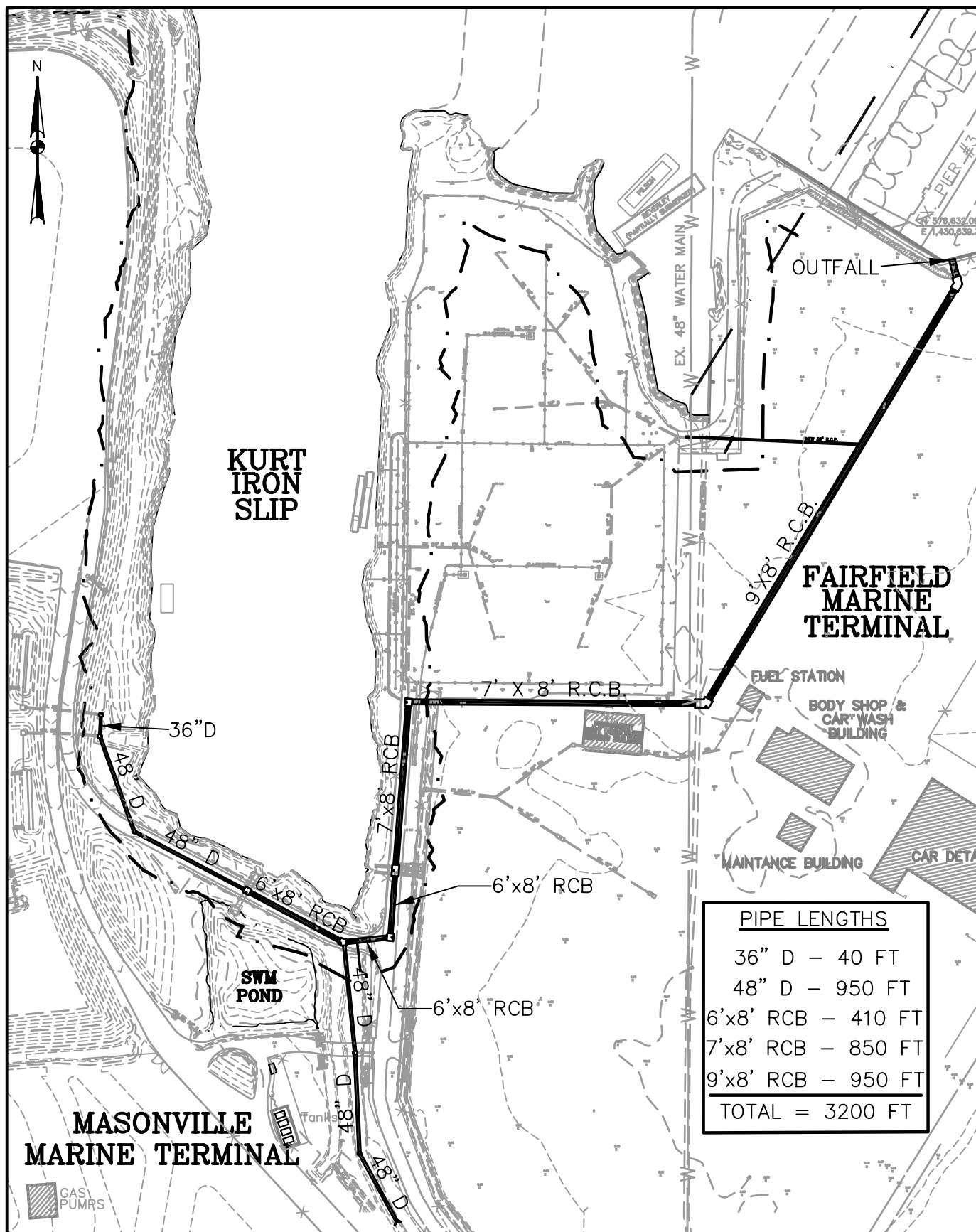
**WATERLINE PILE  
DETAIL**  
MASONVILLE DREDGED MATERIAL  
CONTAINMENT FACILITY  
BALTIMORE, MARYLAND

PROPOSED DREDGED MATERIAL  
CONTAINMENT FACILITY  
IN: PATAPSCO RIVER  
AT: BALTIMORE CITY

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APPLICATION BY: MARYLAND PORT  
ADMIN. — HARBOR DEVELOPMENT  
DATE: MAY 2006  
DATUM: MEAN LOW WATER (MLW)  
SCALE: 1" = 250'  
DRAWN BY: MOFFATT & NICHOL




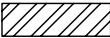
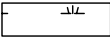
## NEW STORM DRAIN PLAN

MASONVILLE DREDGED MATERIAL  
CONTAINMENT FACILITY  
BALTIMORE, MARYLAND

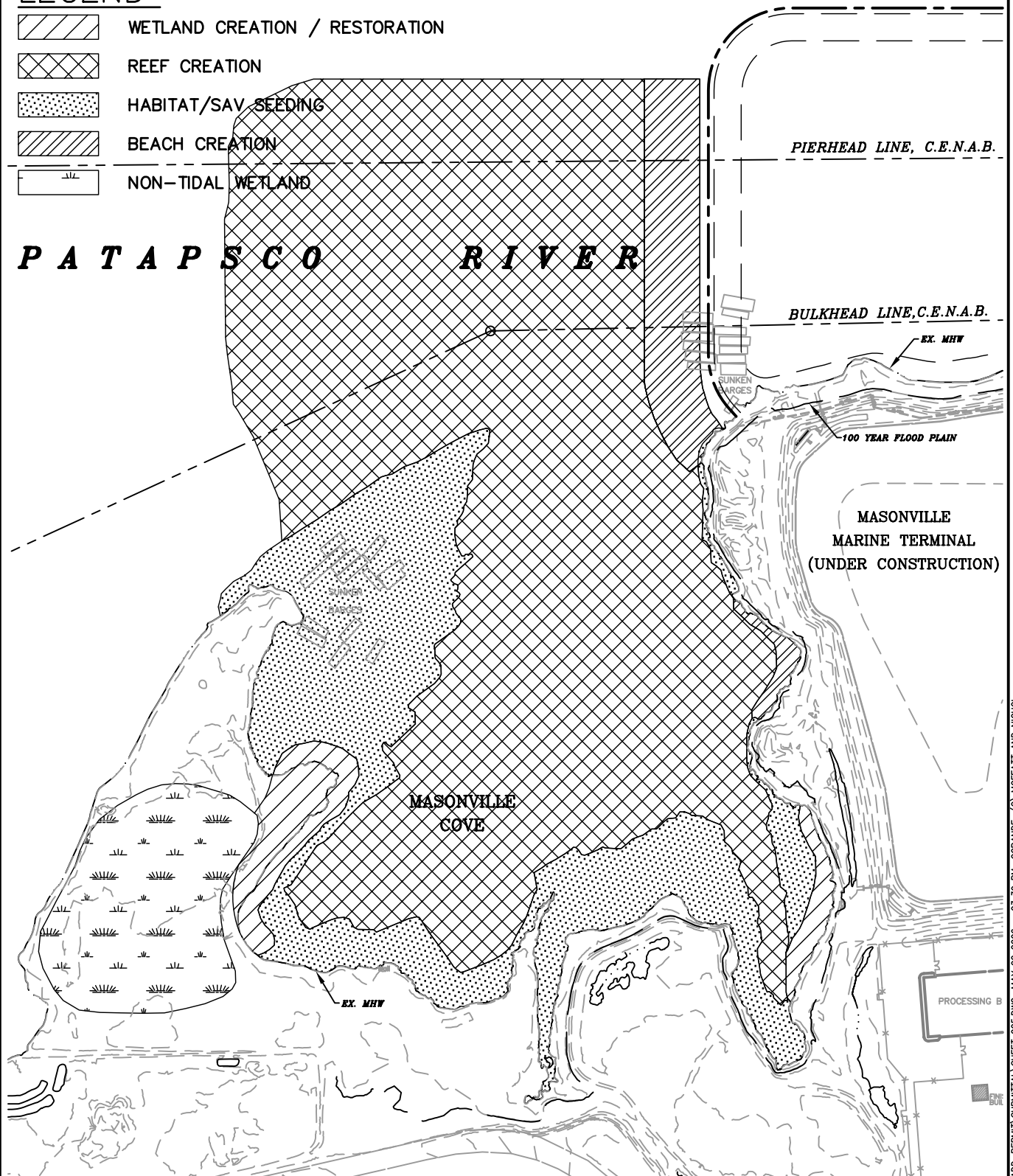
PROPOSED DREDGED MATERIAL  
CONTAINMENT FACILITY  
IN: PATAPSCO RIVER  
AT: BALTIMORE CITY



# LEGEND

-  WETLAND CREATION / RESTORATION
-  REEF CREATION
-  HABITAT/SAV SEEDING
-  BEACH CREATION
-  NON-TIDAL WETLAND

**PATAPSCO RIVER**



NOTE: ADDITIONAL OFFSITE PROJECTS TO BE INCLUDED IN MITIGATION PLAN.

APPLICATION BY: MARYLAND PORT  
ADMIN. — HARBOR DEVELOPMENT  
DATE: MAY 2006  
DATUM: MEAN LOW WATER (MLW)  
SCALE: 1" = 500'  
DRAWN BY: MOFFATT & NICHOL

**MASONVILLE COVE  
ENVIROMENTAL  
RESTORATION  
CONCEPT PLAN**  
MASONVILLE DREDGED MATERIAL  
CONTAINMENT FACILITY  
BALTIMORE, MARYLAND

PROPOSED DREDGED MATERIAL  
CONTAINMENT FACILITY  
IN: PATAPSCO RIVER  
AT: BALTIMORE CITY

SHEET 25 OF 25